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ABSTRACT

This manual is designed to assist teachers in integrating the theme of the Bicentennial into all subject areas. Most of the activities and materials described in this unit relate to the outdoors. The manual deals with activities under the three categories of interest in the Bicentennial celebration: (1) Heritage USA - the people, places, and events of U.S. History; (2) Festival USA - the arts and crafts of America; and (3) Horizons '76 - America's future. (RE)

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The BICENTENNIAL in Tennessee

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Teacher's Manual

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Metropolitan Schools of Nashville

SE 029 529

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TEACHERS MANUAL

THE BICENTENNIAL IN TENNESSEE

Introduction

This manual is designed to help teachers use the theme of the Bicentennial in all of their subject areas. In this manual the interaction and interdependency of people and their environment is woven, in a flexible manner, into all of the subject areas. The out of doors is a natural area for the study of our nation's heritage. Involved learning experiences can be used to guide the students to see theri environment through the eyes of the American Indians or the early pioneers. In this way we can enable them to develop an understanding and appreciation for both our natural and human resources and to develop a committment to the conservation of both man's potential skills and our natural resources.

By intergrating activities in all curriculum areas the total idea of "oneness" and the ability of our early Indians and settlers to survive can be made to come "alive" for the students.

Most of the materials needed for activities included in this unit can be found in the out of doors or from the Department of Environmental-Outdoor Education. References will be given for each section so that teachers may go beyond the suggested activities in planning their programs. There are many excellent books and manuals being published now and this manual will not attempt to cover any one area in complete detail. Instead it will offer suggestions of activities that can take place out of doors, or have as a basis, using the out of doors for materials, as in Nature Crafts.

Some activities will have the classroom as a basic work area but some of the related activities will be done in the school, community or at an historic place.

As with the national themes this manual will deal with Heritage, Festival and Horizons '76. The Heritage '76 theme will focus on the people, places and events of the past, with emphasis upon the spirit, dedication and accomplishments of our predecessors. Festival USA will point up the arts and crafts of Americans at work and play as well as the folkways and customs that make up the rich and diverse culture of America. Horizons '76 will be directed towards achieving a better quality of life for all, with emphasis upon improving the environment and conserving natural resources.

It is not necessary for any project to be elaborate or expensive. The important thing is that your Bicentennial activity involves the students in a creative and meaningful manner.

Each series of activities will be marked with a special logo to show what theme can be developed by this activity. Many activities will be in more than one area.

Hopefully, teachers will take this manual and use it to start them in activities about the Bicentennial. These are given as suggestions and ideas and as such, cannot begin to suggest all possible activities. Depending on the ages and abilities, a teacher can use these activities and modify them to suit their situation.

Inside the classroom, at the playground, in the community, at home or at school--All areas need to be utilized to help the youth understand, learn, and take stewardship of our wonderful country.

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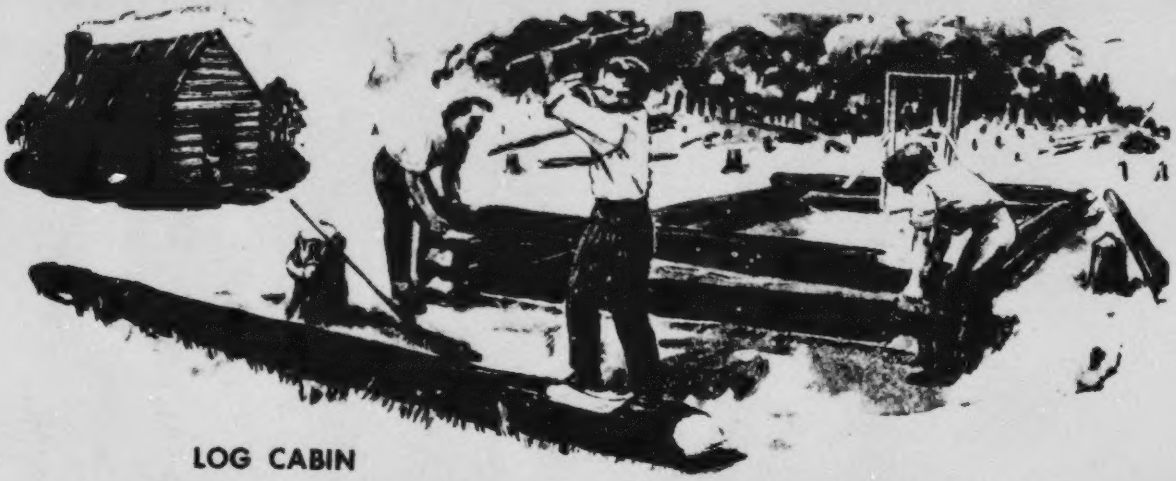
Special logo marks

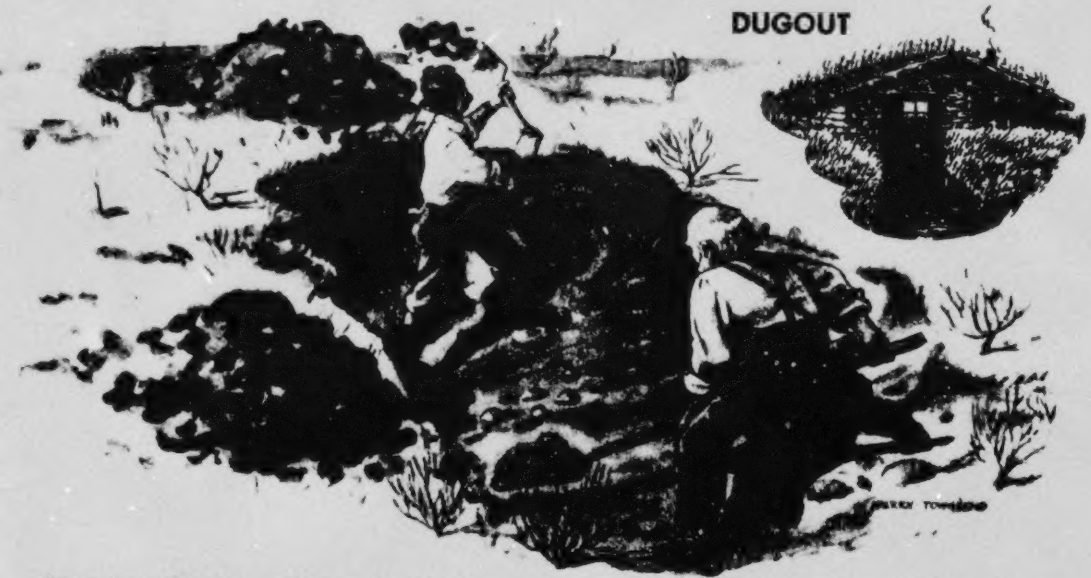
Heritage '76
Festival
Horizon's '76



LOG CABIN

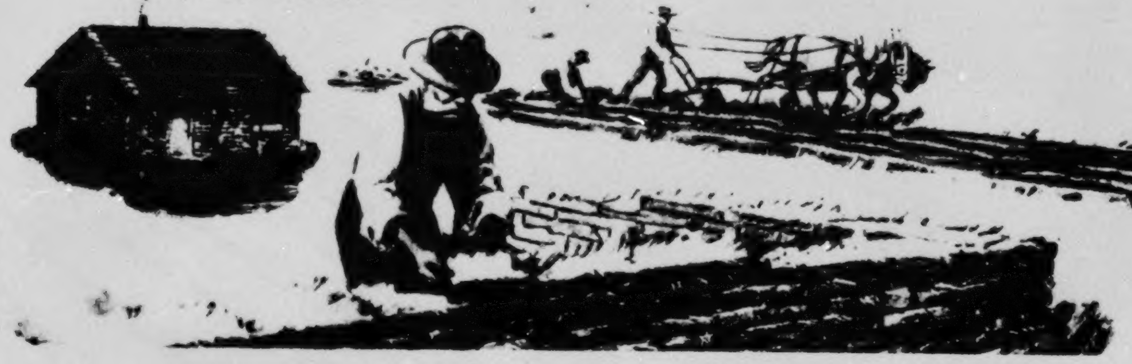
In Forested Regions, or along wooded creeks on the plains, the first permanent home of the pioneers was the log cabin. After the trees were felled, the logs were trimmed, notched at the ends, and fitted into place. Thin wedges of wood were inserted where the logs did not fit. The cracks were "chinked" or "daubed" with a mixture of clay, grass, and mud. The roofs usually were made with poles, which were covered with clapboards shaped by an ax.

DUGOUT



Where Wood Was Scarce, the pioneers used whatever materials they could find. They often dug out a hollow in the side of a hill and covered it with poles, branches, and prairie sod. The opening, facing south, seldom had a door. A more permanent home was the sod house built with sturdy strips of sod stacked one upon the other. The roof was made of poles and brush covered with thick layers of sod. Wooden frames were used for doors and windows, and animal skins or oiled paper were used instead of glass windowpanes. These houses were warm in winter and cool in summer. Sod schools and churches also were common. In the Southwest, pioneers built their homes of adobe, or clay bricks.

SOD HOUSE



SECTION II

A. Nashville, Davidson County, and Tennessee

There are many good books on history so this portion of the manual will devote itself to some little known and hard to find interesting facts about the area.

The earliest prehistoric dwellers of Tennessee were probably cave dwellers. Along many of the rivers are found cave overhang shelters and remains of living. Many Indians made crude shelters as they traveled looking for game. The later prehistoric Indians, the mound builders have left a great deal of evidence that they were here, but no real indication of why they left the area. Shelters of these people were usually circular, 20 to 30 feet accross. Dirt was banked up about two feet aroung the base of each house. Posts driven into the dirt supported the walls and roof of thatch. A hole in the top let out the smoke. The first people lived by hunting but they soon began to cultivate crops, the most important of which was Indian corn, maize. The Mound builders living around Nashville were called the Cumberland Stone Box Indians, after their way of burying their dead in coffins made of slabs of limestone--putting them into "cemetaries." One type of pottery made by these Indians was the wax-resist type usually found only in Mexico or South America. There are many unanswered questions about these Indians and with the parade of progress with highways and houses, much of the needed clues are being lost.

At the beginning of historic times in Tennessee two major groups of Indians were living in the general area. Around Nashville there were very few Indians actually living as this area was used as a hunting ground and a place to get salt at the Great Salt Lick (under cement near

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the Farmers Market). In the Eastern and some parts of Middle Tennessee lived the Cherokees, part of the Iroquois Nation, in the Western part of Tennessee were the Chickasaws, a part of the Muskhogean Nation. A few other tribes such as the Shawnee and the Creeks would use the area for hunting but most were driven out by the stronger tribes by about 1714. The friendship of the Chicasaws helped the English develop the Cumberland settlements both by helping to defeat French plans for establishing forts and by halting Spainish Conquest plans.

The earliest known European known to have come into what is now known as Tennessee was the Spainard, De Soto. He visited the site of Memphis and some areas at the junction of the Hiwassee River and Conassage Creek, the area of present day Chattanooga.

Over 100 years passed before other Europeans came. These included Louis Jolliet, La Salle for the French, Englishman James Needham and a young boy Gabriel Arthur. Arthur was left with the Indians to learn their ways and went withthe Indians on hunting trips. He is thought to be the first white man to set foot on Kentucky soil. Most of the early travelers in Tennessee were Frenchman. By 1715 a French trader named Charles Charleville had established a trading post at the Great Salt Lick in Nashville. From then on the European countries struggled with one another for the area. The English tried to preserve the mountains as an unbroken frontier and forbade settlers to cross the Appalachian ranges. The frontiersmen went on building their cabins and forts and finally, in 1763 France relinquished the entire St. Lawrence Valley and all lands east of the Mississippi to England. Spain lost their last stronghold, Florida to the English.

Oppression in the Eastern colonies to infringements against freedom and petty abuses by local governments were causing pioneers to look to the west. Lack of title to the lands and hostile Indians discouraged many settlers from making the long trip but a few hardy families moved to new homes beyond the mountains. In 1769, William and Liddy Bean settled on the Watague River and there Russell Bean, the first white child in Tennessee was born.

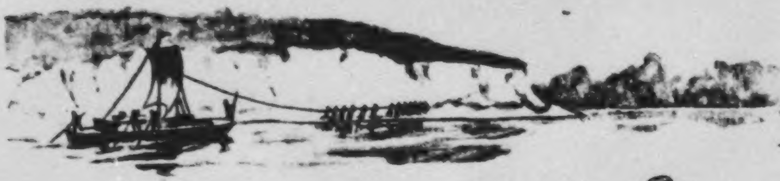
Daniel Boone soon followed and his experiences in both Tennessee and Kentucky paved the way for future settlements. George Washington, in 1770 visited much of that area to investigate the claims given to his men after the French and Indian War. Aroung 1770-1771 James Robertson visited the Watague settlements and later settled there. Here a treaty was signed with the Indians and on 1775 the settlers here bought the lands from the Indians.

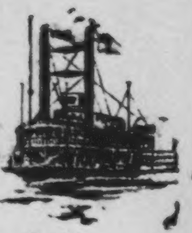
In the late summer and early spring of 1776 the men in this area fought Tories and defended their settlement against the combined forces of the British and the Indians. In 1776 the settlers in Tennessee requested to be annexed by the government of North Carolina. This led to the formation in 1777 of Washington County of North Carolina, which included all of present Tennessee. A community named Jonesboro was laid out in 1779 as the county seat. This is the oldest established town in Tennessee.

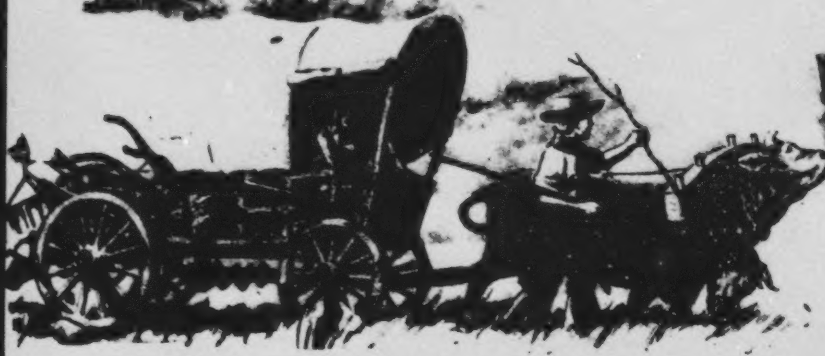
The only formal battle of the Revolution in which forces from Tennessee took part was the battle of Kings Mountain. In 1780 Nashville (Nashborough) and other Middle Tennessee settlements were begun, these were remote from the fighting in the east. These settlers requested a government from North Carolina but that newly found national government had no time for the "western" areas. The settlers therefore set up a new state--the State of Franklin and in 1784 elected John Sevier as its first governor. North Carolina decided to hold on to the area and much bitterness and wrangling continued until 1790 when North Carolina turnded over the area to the United States. In 1790 this area called the

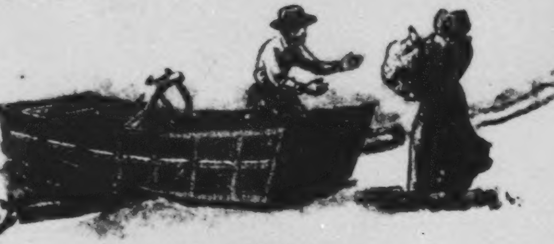
PIONEER TRAVEL

Keelboats Pushed by Poles and Pulled by a Rope could travel upstream. Sometimes the keelboats had sails. The bodies of the covered wagons often were used as boats to cross streams. With the coming of the first river steamboat in 1811, traffic along the Ohio and Mississippi increased, and river towns dotted the way from Pittsburgh to New Orleans.

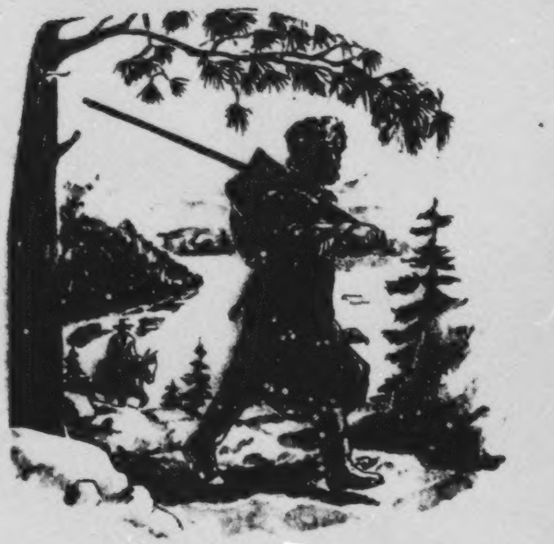






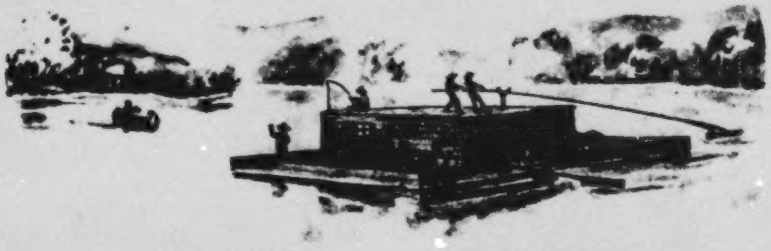


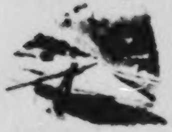
Prairie Schooners were called by that name because at a distance the white awnings that covered the wagons looked like a fleet of sailing ships with all canvas spread. They were not as graceful as the Conestoga wagons developed by the German settlers in Pennsylvania, but were widely used by the pioneers crossing the Great Plains between 1840 and 1890. On them, the pioneers piled all their goods, including plows and other implements. The trip from the Missouri River to the Pacific Coast took four to five months on rough, winding trails.

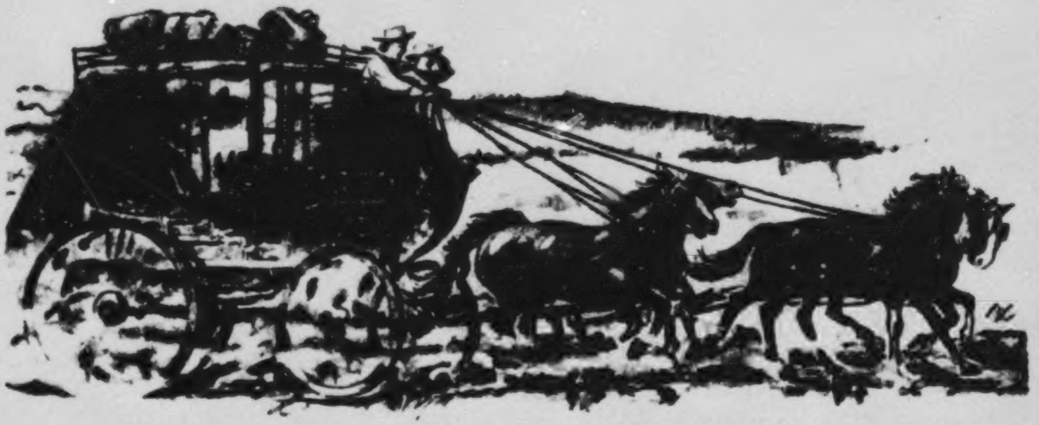


Traveling on Foot, and sometimes on horseback, trappers, explorers, and adventurers crossed the Alleghenies during the 1700's and blazed the trails for other pioneers to follow.

The First Great Highways to the West were the Ohio, Mississippi, and Missouri rivers. Along these, on their way to the new country, the pioneers traveled in crude dugouts and graceful Indian canoes; on clumsy, unwieldy rafts; and in flatboats with housing that gave shelter and protection against the weather and Indian attacks. Livestock often was taken on the flatboats.







Stage Coaches Were In Common Use soon after 1700, as post roads were built between the large cities of the East. Most of the coaches were built at Concord, N.H. During the 1800's, coaches speeded transportation between the East and the West. In crossing the plains, the pioneers changed horses about every fifteen miles and covered about one hundred miles a day It took twenty-three days to go from St. Joseph, Mo., to California along the Santa Fe Trail The fare was $225. This did not include the meals the travelers ate along the way

Southwest Territory was governed by William Blount living in a cabin "Rocky Mount" near the apresent Johnson City. Knoxville became the first territorial capital and Governor Blaunt built the first frame house west of the Alleghanies as a combined home and capital. In 1796 Tennessee became a state, Murfreesboro became the capital in 1819 and in 1843 Nashville (changed from Nashvillbrough after the Revolutionary War, Borough being English--our enemies, and ville being French--0ur allies in the war) became the first permanent capital.

Other important dates and events in early Tennessee history include:

1779-Robertson arrives at Fort Nashvillborough, planted corn and left to get the families.

1780-Col. John Donelson arrives at Nashborough.

1782-Settlers who had arrived before 1780 given 640 acres of land.

1783-Cumberland Settlements became Davidson County--included 16 other counties. First Hotel built.

1784-Name changed to Nashville after General Nash, hero of Revolution

1790-30 log and frame houses built.

Famous Firsts in Nashville (Taken from"Firsts in Nashville"-Printed by First American Bank, 1966)

First Wedding-Captain James Lieper, Colonel Robertson's second in command and Susan Drake. Married by Colonial Robertson. First wedding west of the Cumberland Mountains.

First Hotel-The Nashville Inn on the Public Square in 1783. Built on the corner of Market Street (2nd Ave.) and the square.

First Store-1784-Lardner Clark brough his pack horse to sell needles, pins and cloth. The settlers exchanged their furs for these first "dry goods."

First Court House-1783-Building of logs near the square with a prison, pillory and whipping post. A handy sycamore tree provided the gallows for the prison.

First Water Grist Mill-Headon Wells built a grist mill on Thomas Creek a quarter of a mile from the mouth-1784.

First Sale of Lots-1784-200 acres of land was set aside for the city in 1 acre lots. A survey was made and 26 of the lots were sold, the price being 4 pounds for each one acre lot ($16.00). James Robertson got lot number 9-a lucky draw-the acre was located where thrid Ave. now faces the square. Within three years he had sold half of it for 300 pounds.

First Chartered Educational Institution-1785-240.00 acres were set aside for the school. It was called Davidson Academy, later to become Davidson College. In 1806, it became Cumberland College and in 1867 Peabody College.

Nashville Medicine-1885-Dr. Sappington was the only doctor in town. He made up "Sappington pills" covering them with mystery and a coat of sugar.

First Town's Map-David Macock, a trained civil engineer and land surveyer drew up a map of Nashville and surrounding lands. A good judge of land values he and his fater selected 22 hundred acres that was to become much of the Nashville residential area.

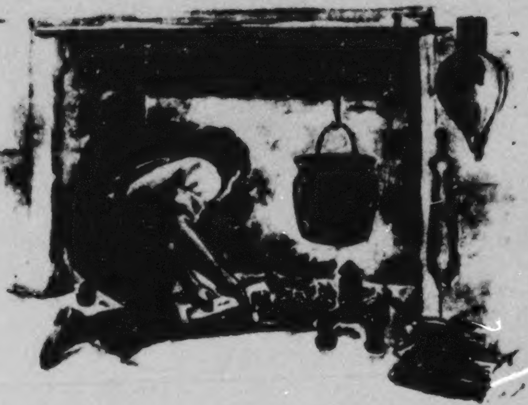
First Brick House-1888-Built of hand made bricks, lumber that was hand sawed and hand made nails. The home of Major John Cockrill was at what is now 916 Ceder St.

First "Home Made Salt"-Using salt from the Lick in 1888, a Nashvillian set up a salt manufacturing "plant" on the outskirts of Nashville. The first patent ever granted a citizen of Tennessee was granted to a George James in 1796 for a device for the manufacture of salt.

First Tourist to Tennessee-1786-A Thomas Bailey, an Englishman visiting the new United States came to Nashville, to see the "wester wilds." He was amazed at the number of wheeled vehicles.

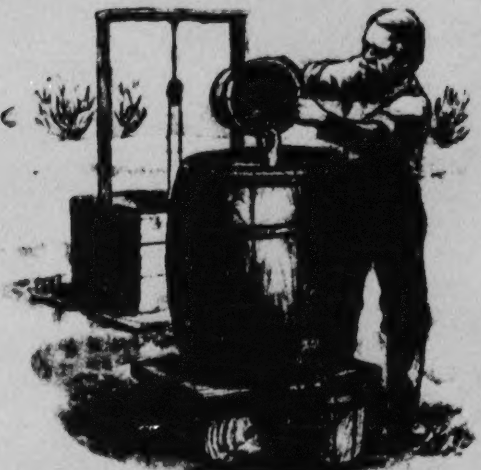
First "Shopping Center"-This was located wouth of and around the wquare. Here was an Inn, Court House and jail, a few general stores, barber shop and livery stable (both operated by the barber), a doctor's office and even a dancing school.

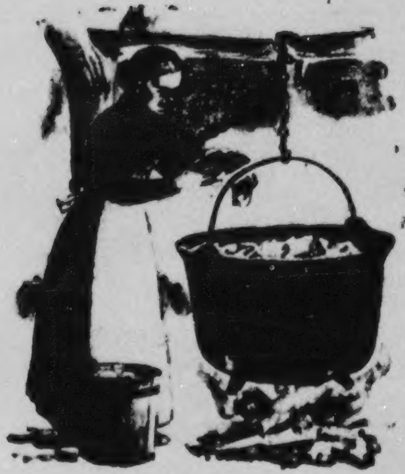
First Road leading out of Nashville-to Mansker's Station-1783- Two overseer's of the road were appointed. One to go as far as Buchanan's spring and the other on to Mansker's station. This is located near Jones's Bend where the creek empties into the Cumberland River near Goodletsville.



SOAPMAKING

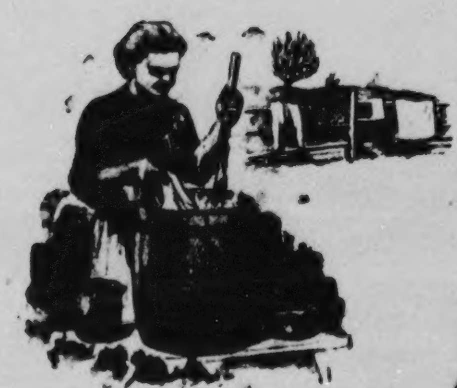
Every Spring, enough soap was made to last a year. Wood ashes saved during the winter were put into a barrel. Water was poured through the ashes and allowed to trickle out through a hole near the bottom. This brown liquid, or "lye," was then boiled in a large kettle with fats and grease saved from the year's cooking and butchering. The mixture was cooked slowly until it thickened to form a soft, jellylike, yellow soap.

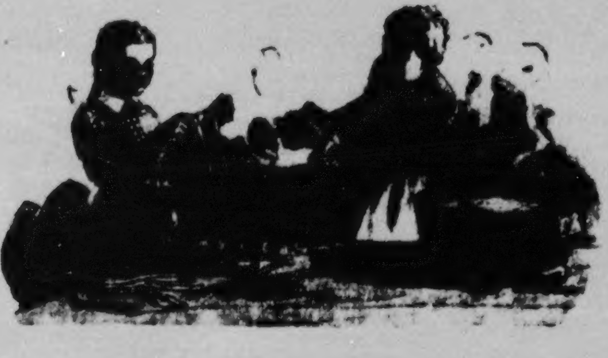




CANDLEMAKING

Wicks, Made of Rolled Cotton, silky down from milkweeds, or tow string, were slipped over a candle rod and dipped in melted tallow. The tallow clung to the wick and hardened. The dipping continued until the candles had become thick enough. Later, tin molds were used and as many as six, eight, or more candles could be made at once. The melted tallow was poured into the molds and then allowed to cool around the homemade wicks.





The Bicentennial of the American Revolution is a good time to recognize the distaff side of this great struggle for independence. These historic ladies--gallant, brave, self-sacrificing, devoted to the ideal of freedom--make up a truly memorable gallery of immortals. Their courage and daring in time of crisis often saved the day and made the difference between victory and defeat for the Colonial forces. Let us take a look at some of the Southern heroines in this brochure.

Sarah Hawkins Sevier, the first wife of Colonel John Sevier, the hero of the Battle of King's Mountain, was a Virginia girl who came to the Watauga Settlement, which later became a part of Tennessee. The Watauga Association, organized in 1772, adopted the first constitution drawn up by native Americans for an independent government in what is now the United States. Sarah died in Virginia, but she had five sons defending the settlement and fighting for the cause of freedom with their father at King's Mountain, which was the turning point of the Revolutionary War in the South. On December 16, 1780, a little more than two months after the Battle of King's Mountain, Sevier and his men crossed the French Broad River and battled with the Cherokees at Boyd's Creek (named for Alexander Boyd, who was killed there and his body thrown into the water by the Indians in 1766.) The Battle of Boyd's Creek near Knoxville was the only other Revolutionary War battle fought on Tennessee soil. The Battle of Island Flats, where Kingsport stands today, was the first battle of the Revolution in the West, July 20, 1776. It was also the turning point in the settlers' warfare with the Cherokees, who were British allies.

Catherine Sherrill Sevier, the second wife of Tennessee's first governor, often recalled her romantic meeting with the hero in buckskin at Fort Caswell on the Watauga when it was besieged by Cherokee Indians in the summer of 1776. "I could gladly undergo that peril and effort

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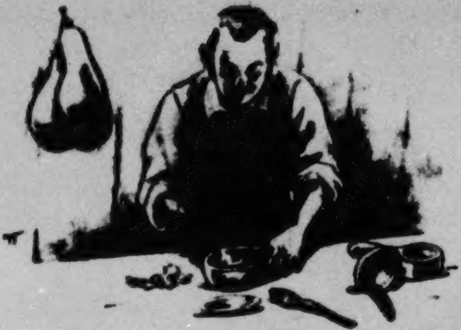
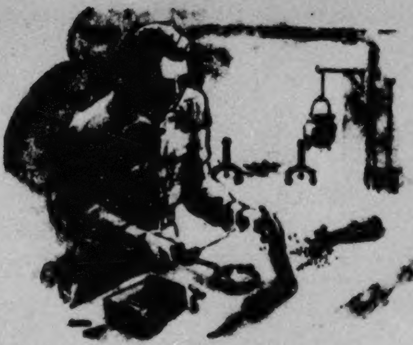
again to fall into his arms and feel so out of danger," she would say, and then add, "But then it was all of God's good providence." Thus the first First Lady of Tennessee kept her faith in the Almighty in times of great peril. She would never consent to be shut up in a blockhouse during a raid, always saying: "The wife of John Sevier knows no fear. I neither sulk from duty nor from danger." Her favorite saying was: "I always trust in Providence." It was a source of much gratification toher, and one of which she fondly boasted, that among the first work she did after her marriage was to make the clothes which her husband and his five sons wore the day they were in the memorable Battle of King's Mountain. Thus "Bonnie Kate," the brave lass who was rescued from pursuit by the Indians by the most famous Indian fighter of the frontier, continued her gallant efforts in the fight for freedom.

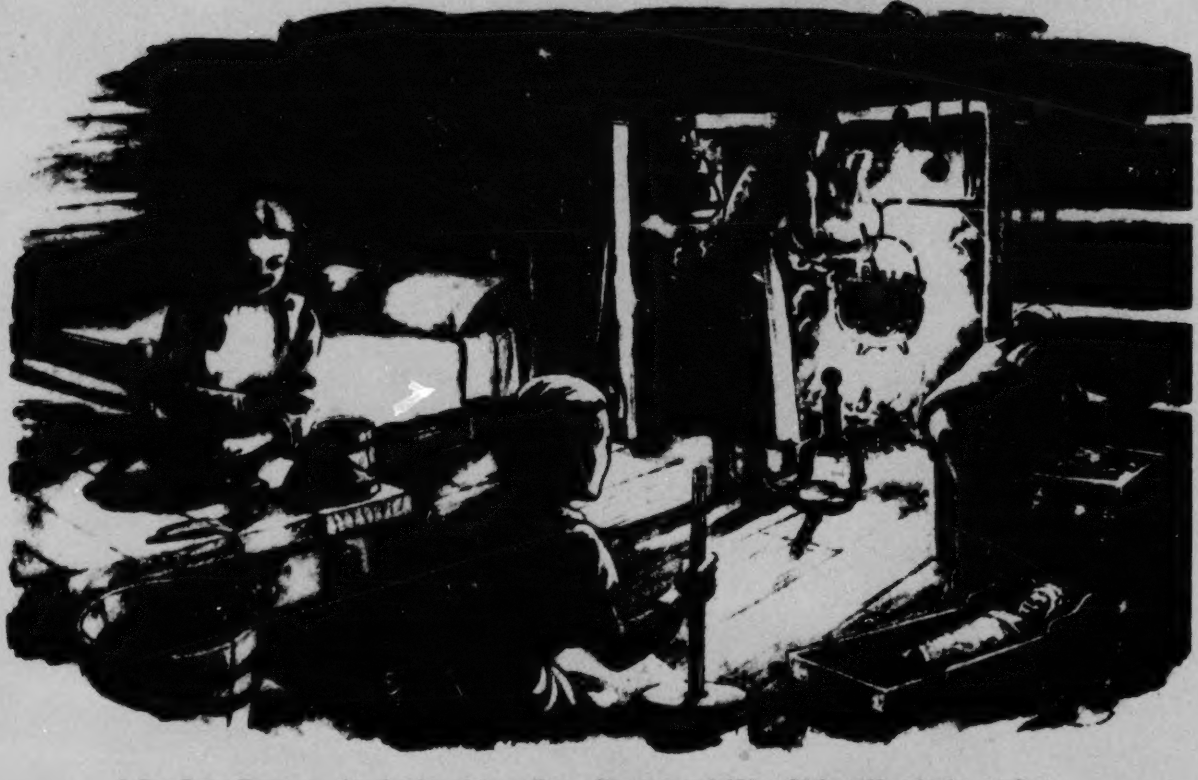
Nancy Ward, the legendary Indian leader known as "the Pocahontas of the West," was born at Chota, a Cherokee village on the Little Tennessee River near the present reconstruction of Fort Loudoun in Monroe County, Tennessee. She endeared herself to the white settlers along the Holston and Watauga river valleys of East Tennessee by warning them of intended raids by the Indians. She often sent food to the colonists and helped them in time of sickness. This friendship had important results during the American Revolution. In July 1776 Nancy Ward is credited with having sent a secret warning to John Sevier of a planned pro-British Cherokee attack. When one settler, Mrs. William Bean, was captured by Cherokee warriors, Nancy personally intervened to save her from death at the stake. Nancy Ward lived to be 84 and is buried near the present town of Benton, Tennessee. Her grave is marked by a Tennessee D.A.R. chapter bearing her name.

Ann Robertson, a sister of James Robertson, was the first school teacher in Tennessee and also taught Sunday school in the Cumberland country. On the long voyage of "The Adventure" with the Donelson party in December, 1779, down the river from the Wautauga settlement to Fort Nashborough, she took a man's part in firing at the Indians who attacked from the banks. She had earlier proved herself a heroine at Fort Caswell during a raid in July of 1776. When the savages started climbing the sides of the stockade, Ann suggested that the women bring their kettles of boiling water to pour on them. Her first husband, Isaac Johnson, was killed by the Indians at Johnson's Fort and she was left with three young daughters. At Fort Nashborough Ann did more to establish peaceful relations between the Indians and the new settlers than could have been done by a host of armed riflemen.

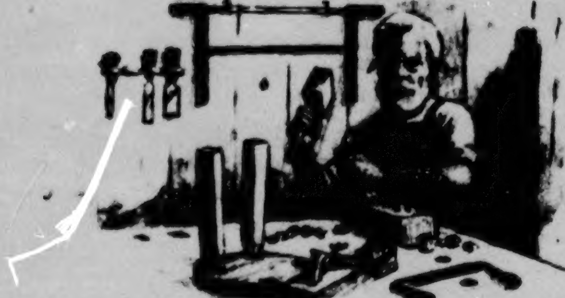


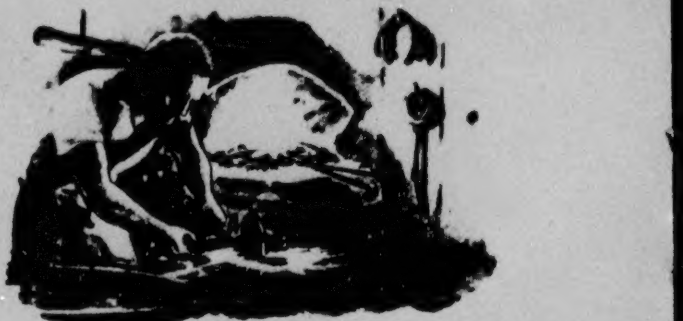


HOME LIFE OF THE PIONEERS



A **One-Room House** served as the pioneer's home. Here the family ate, worked, played, and slept. Every member of the family did his share of the work. The men whittled utensils, molded bullets, made furniture, or forged ironwork. The women and children did the cooking, churning, mending, and other household tasks. The fireplace, pots and pans, wooden pail and dipper, and homemade furniture show how different home life was in the days of the American frontier.





GOOD TIMES OF YOUNG PIONEERS

FUN AT HOME

Pioneer cabins were full of boys and girls. Ten or twelve children in one family were not unusual in the early days. There was work for all of them, but they had their fun, too.

Their few simple toys were homemade. A dried gourd, its seeds loose inside, made a good rattle for the baby. An ear of corn became an amusing doll. The yellow cornsilk made pretty hair, and the husks were shaped into clothes. Sometimes a rag doll was made by cutting a doll out of cloth and stuffing it with rags or sawdust. Scraps of yarn and cloth were used for doll clothes. The doll's cradle was carved from wood.

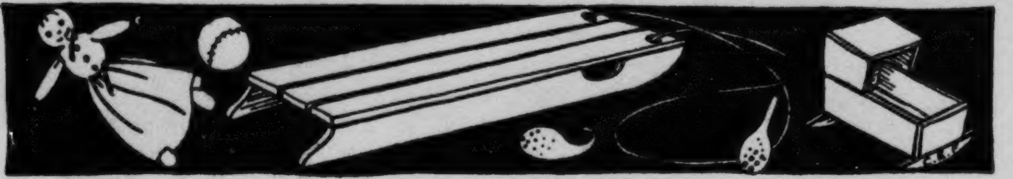
A top was easily whittled out of wood with a good sharp jackknife. Wood sleds and carts were homemade, too. The boys made whistles of pawpaw wood or willow. Hard balls were made by wrapping a stone with yarn and then sewing deerskin around it.

Girls strung seeds and berries for necklaces. Young girls learned to sew and knit as soon as they could hold the needles. The children played "house" as little girls still do. Broken china and stoneware, acorns, and shells were dishes. Potatoes and turnips, with sticks for legs, made funny animals.

Pioneer children often had live pets. Every family owned a dog. The men took him hunting with them and the children claimed him for a lively playmate. The children tamed squirrels, raccoons, opossums, and even crows. Sometimes they kept a fawn or a bear cub for a pet until it grew big.

On winter evenings around the fire, young and old were busy at some task. While they worked, the children told riddles, old rhymes and tongue-twisters. They sang hymns and ballads and said verses from the Bible. Corn was popped in the fireplace, and apples were roasted in the hot ashes. No one minded the long winter evenings.

Sometimes a traveler stopped at the cabin to rest, or the preacher who came every few weeks was a guest over night. Then the children sat wide eyed, listen-

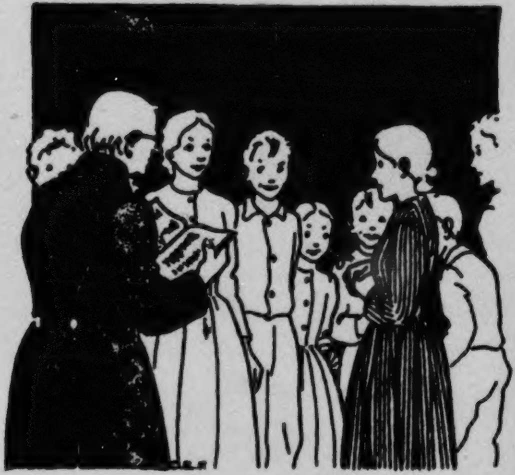


ing to tales of the world beyond their cabin door. They heard about their distant neighbors in the next clearing, about raids and dangerous wild animals in the forest. They liked to hear about far-away cities and great men in Washington, D. C., and the East. Visitors were always welcome in the pioneer homes of Indiana.

FUN AT SCHOOL

After harvest and before the winter snow, school was held, or "kept," in one of the cabin homes or in a one-room log schoolhouse. At recess the children marched, sang and played games. The games they played were often hundreds of years old. The first settlers who came to America from lands across the sea had brought these games with them. Some of the games are still played today. "London Bridge," "The Farmer in the Dell," and "Here We Go Round the Mulberry Bush" were among the games they liked best.

The big boys ran races and wrestled. They pitched horseshoes, played ball, and had high jumping contests. Anything to prove that they were strong and nimble! If a wild grapevine grew near the school, it made a fine swing for the younger children. Boys and girls joined in games of Crack the Whip, Prisoner's Base, and Hide-and-seek. Fox and Geese was played in the snow. At Christmas the pupils expected the schoolmaster to provide a "treat" of some kind — apples, stick candy, or an orange. If he did not, the big boys played tricks on him. Sometimes there were "spelling bees" in which pupils and their parents took part. It was a proud child who was able to "spell down" men and women three times his age.



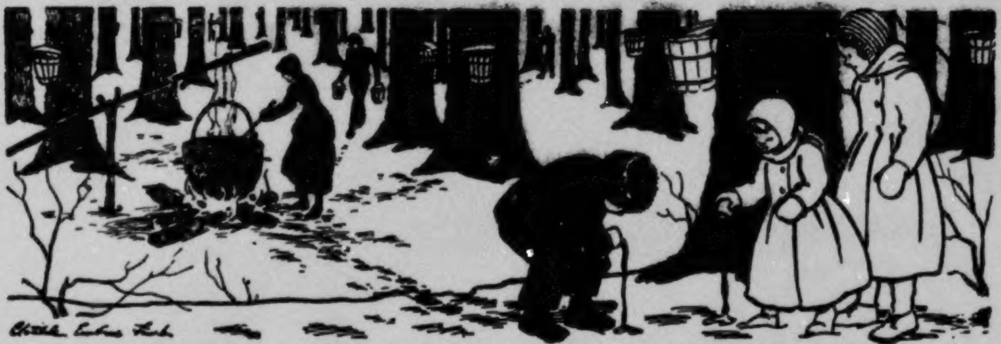
A spelling bee at school.

FUN OUT-OF-DOORS

In winter the children enjoyed coasting down hill on their homemade sleds, just as you do. When the rivers and lakes froze over they skated on the ice. Very lucky was the boy or girl who owned a pair of homemade wooden skates.

Boys took pride in catching mink, muskrats, beavers, rabbits, and other small animals in traps. They earned money by selling the furs. The boys went hunting with their fathers to get meat for the table. They knew how to shoot pigeons, quail, wild turkeys, deer, and rabbits.

Sometimes a boy's best friend was an Indian lad. The Indian boy taught his white friend how to set a trap, how to imitate the calls of birds, and how to recognize the tracks of animals in the snow. He taught him the secrets of the forest.



Maple sugar time. Boiling down the sap, and making candy on the snow.

On fall and winter nights the older boys went on coon and possum hunts. They carried lanterns or blazing knots of wood. Their hunting dog found the animals and chased the coons and possums until they ran up the trees. The boys followed and killed the animals.

In early spring boys and girls had fun helping in the sugar camp. The maple trees were tapped for their sugar water, or sap. A spout was fastened in the tree and a pail hung on a nail to catch the sap. Fires burned under big kettles night and day, while the sap was boiled down into maple syrup. Delicious candy was made for the children by pouring syrup on the snow to harden, or into pans to be stirred into creamy sugar.

Spring time was planting time. Flocks of greedy crows flew down into the clearings to eat the corn as fast as the men planted it. The younger children had to play in the fields with noise-makers to scare away the crows. They shouted and blew horns and whistles. They beat pans and rang bells to frighten the crows and black birds away.

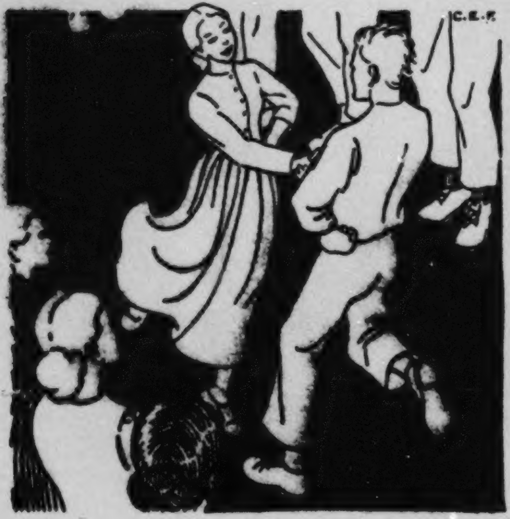
Summer was the time for fishing and swimming. Any boy could cut a fishing pole and dig some worms for bait. There were all kinds of wild fruits and berries to gather in the woods. With the cabin door and window open, the family seemed to live out-of-doors. The long summer days made it possible to visit the neighbors, where the children played games together. The Fourth of July was celebrated in the small towns with picnics, speeches, and the shooting of guns.

In autumn the grain was harvested. Potatoes and onions were dug. Vegetables from the garden and fruit from the orchard were stored away for winter. Boys and girls gathered walnuts, beech, hickory and hazel nuts. Wild geese started flying south in such great numbers that they were easy marks for young Hoosier hunters. Flocks of passenger pigeons stopped to feed upon the fallen nuts in beech and oak groves. They were easily shot or knocked off their roosts at night.

A trip of any kind was exciting to pioneer children. Even a trip to the mill to have corn or wheat ground into flour seemed important. In later days they went to the crossroads store or blacksmith shop. Sometimes a boy and his father went in a wagon or on a flatboat to one of the Ohio River towns, taking along some crops and animals to sell. They brought back cloth, tools, salt, coffee, tobacco, pins, and needles. The boy told his sisters and brothers stories of the wonderful sights he had seen in the busy river town.

FUN WITH GROWNUPS

When a rider trotted up to a cabin door to invite the family to a party at the neighbors, the children jumped up and down and clapped their hands. Everyone for miles around, from grandparents to babies, drove across the prairies or through the woods to attend the party. In the best room of a large cabin the young men and women played singing games. There was a gay whirling of skirts and thumping of heavy boots as they sang and acted out musical games like "Weevily Wheat" and "The Miller Boy." The children looked on from the kitchen. They kept time by clapping their hands, and tapping their feet, and imitating the dancers. After the games were played, a late supper was served.



Acting out a musical game.

Husking corn was turned into a party. Young people were invited to a neighbor's barn. They sat in a circle and pulled the husks from the ears of corn. When a young man uncovered an ear of red corn he could kiss every girl in the circle. When a young woman found a red ear, she could be kissed by every boy. The party always ended with a supper of roasted chicken, baked ham, pies, pickles, preserves, hot bread, and two or three kinds of cake.

The grownups made parties of their quilting bees and log rollings. The women of a neighborhood gathered to help sew and tie a quilt. The children went along and played together. The men helped roll logs for a pioneer who was clearing a field of the trees. The neighbors formed teams and made a game of chopping down the trees, cutting them into logs, and then rolling them into piles for burning. The team that cut and rolled the most logs won a prize. The children were on hand to cheer and dance around the bonfires. A big picnic feast out doors ended the day.

Children loved to attend the shooting matches, where the men tested their aim with a rifle. Weddings also were a time of visiting and celebrating for whole families. The hard life in the Indiana wilderness was made happier for pioneer children by the good times they shared.

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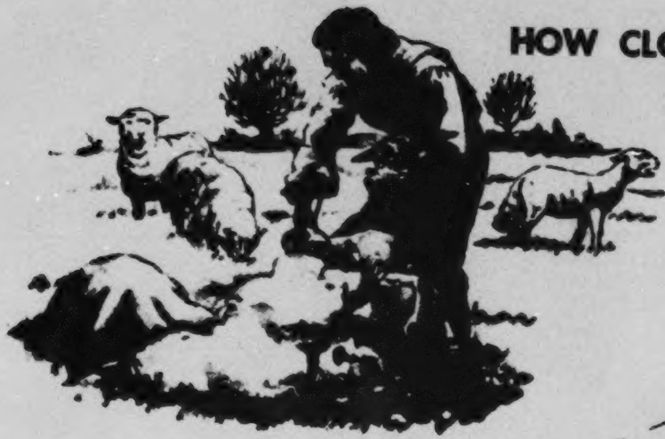
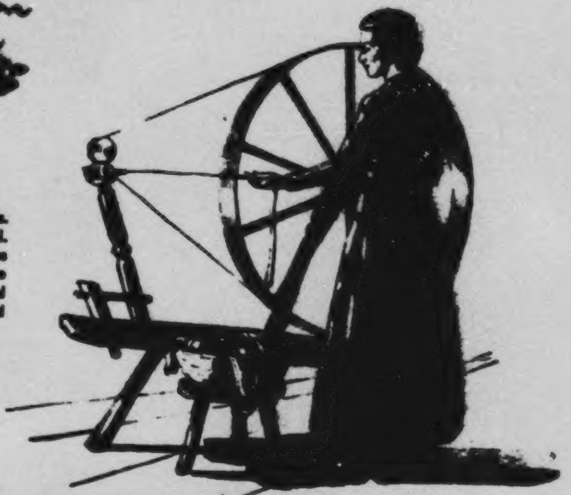
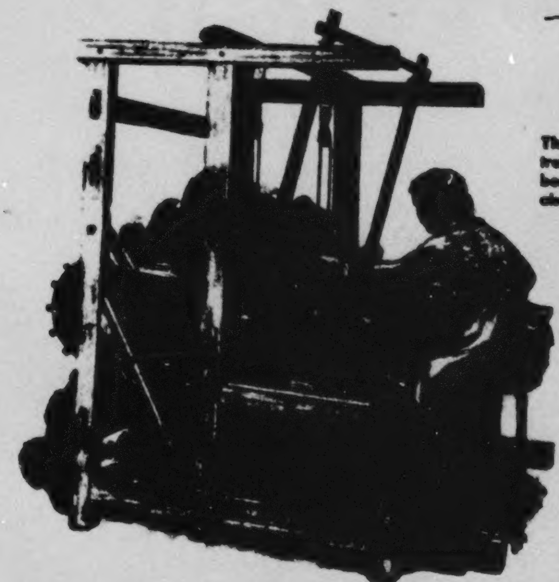


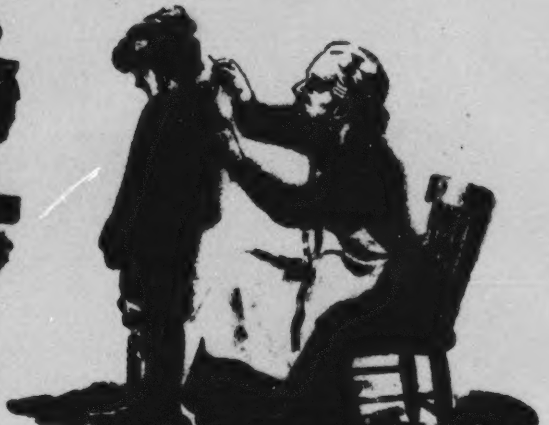
HOW CLOTHES WERE MADE



Homemade Clothes were worn by most of the pioneers. Deerskin and pelts of fur-bearing animals often were used. Later, when the settlers began to raise sheep, the wool was sheared, washed, combed, carded, and spun into yarn. A dye was made from berries, leaves, and bark. The yarn was dyed before it was woven into cloth on a loom. Learning to spin and weave was part of every pioneer girl's education.



The Pioneer Woman, like the frontiersman, was a jack-of-all-trades. Working with spinning wheels, looms, coarse thread, bone needle, and knife or scissors, she made the clothes. She also made shoes and moccasins from buffalo hide and deerskin.



Many of the Looms used by the pioneers were much more crude than the one shown. Others were more elaborate. As transportation and communication with distant centers of industry became easier, the busy pioneer women wove less cloth and bought more ready-made goods for family use.

ACTIVITIES FOR SECTION A

I. Locate on a map of Tennessee areas in which the Mound Builders were known to have lived. Make a model of an early mound complex with houses and temple mound. Consider the question: What is the evidence that Cave Dwellers lived along the Cumberland, the Tennessee, the Duck and the Wolf Rivers? From what part of the world did the Original Mound Builders come from? What happened to the Mound Builders (make up a story or play explaining your idea of what happened to the local Mound Builder). Compare the rock shelters of the early Indians here with the Pueblo ruins in the Southwest.

II. Write an imaginary diary or journel of William Bean or one of the early pioneers.

1. Explain the role of each of the following in the settlement of the Nashville Area: Richard Henderson, James Robertson, and John Donelson.
2. Make a "trail" map showing the route of James Robertson and others who came through the forests and the route taken by those who came by river.
3. Dramatize the meeting of the two groups.
4. Pretend you were at Fort Nashborough during the "Battle of the Bluffs" when it was attacked by Indians. Write a letter to a friend telling of the attack. (See Tennessee Historical Quarterly, 1959 for an account of the battle.)
5. Find out the size of the original fort and figure out how many square feet of space each person had in the fort to live. How much bigger was the original fort than the present replica? Why was the fort built where it was in the first settlement days?

6. Tell how in letter or journel form how the early settlers of East Tennessee joined with men from North Carolina to prevent the landing of British forces at Charlston during the Revolution. Did any men from the Nashville area help in this fight? If not why do you think they did not help?
7. Relate the action at Charlston to the tradition which gave Tennessee its title "Volunteer State".
8. Evaluate the significance of the victory at King's Mountain. How did the Tennesseans at that battle utilize their superior ability to use the rifle? Why do you think they were so good?
9. Organize the class into a meeting of settlers to make laws for the new settlement.
10. Students should try to find out about their "family tree", not only from what country their family came but some of the jobs different members of the family might have held and other states wher members of the family might have lived. Get the students to talk to grandparents, to tape stories and family histories (show Foxfire movie) and also to talk to older members of the community for early stories about the area.
11. Try to get the students to prepare different types of displays, models of historical places, pictures of old houses and scenes of early living, costume dolls showing early clothes, Indian relics of the Mound builders with a model of their villages, recipes of early America and scenes of pioneer life as shown on stamps, book jackets and other early pictures.
12. Write a newspaper for one day during the early history of Nashville. Illustrate it with pictures and mimograph it for the other students (See Special TIME Issue for 1776.)
13. Survey old cemetaries in the school neighborhood. Make rubbings of interesting stones. Find those that need cleaning up and

organize a group to work replacing fallen stones and beautifying them.

14.. Try an all day Colonial fair: Booths could represent different professions in pioneer life-candle maker, leather worker, weaver, farmer. The wares in the booths could be made by students in different classes both for exhibits and for sale. The money from the fair could be used to buy plants or trees for the school site.

III Visiting an old Cemetery

General Ideas for any old Cemetery

1. "The Cemetery" (from Environmental Learning Experiences for Grades Three and Four, 1973, p. 58.)

Unit Objectives:

The student will be able to

1. identify his feelings toward the cemetery.
2. categorize and compile data from the cemetery in a meaningful form to supplement his study of history.
3. appreciate the past through direct experience in historical research.
4. describe some of the common patterns and symbols in tombstone designs.

Environmental Experience 1: Cemetery Feelings

The cemetery is often pictured in movies and books as an evil place, reeking of ghosts and monsters. Because of these connotations, a fear and dread of cemeteries has arisen over the centuries, for instance, the graveyard scenes in Tom Sawyer. This attitude toward the cemetery is still being perpetuated today. While the adult knows this is mainly a device of the author to create fear and horror, the child does not. Much of this fear probably starts with the fear of the dark that every child at one time experiences. To overcome these fears, the child needs to clarify and examine his feelings and attitudes with experiences and facts. There are many ways in which this can be done. One such way is suggested below.

What is an attitude? Do you hate spinach or think rainy days are boring? Do you think school is terrible? They are all attitudes or feelings you have about something. Why do you hate spinach? Is it because you tasted it and really don't like it, or is it because everyone else seems to hate spinach, so you do too? Many times our attitudes and feelings come to us from books, friends, or movies we see. When you think of a cemetery, what kind of feelings and attitudes come to your mind? Make a list of all the different feelings and attitudes you have about a cemetery. How many of these have you actually experienced yourself and how many come from books and movies or friends? Which ones are true? That's hard! Discuss the ones you think are true. How do you know they are true?

Today many cities such as New York are opening their cemeteries for use as parks. How do you feel about that? Cemeteries are usually very beautiful places, with trees, flowers, ponds and interesting tombstones. If cemeteries are such awful places, why do we make them so beautiful looking? One of the biggest reasons is love, love for the persons that are buried there. Therefore, a cemetery is really a monument for the people we loved and that in itself is rather beautiful. Try making a list of words about the cemetery again, this time thinking about the cemetery as a place filled with love. How do your lists compare?

Environmental Experience 2: Things You Can Learn from a Cemetery

The cemetery is a resource center stuffed full of information on many subjects: history, demography, geology, ecology. It also offers suggestions for many other studies.

Additional Activities:

Make a census of the cemetery. Record all the names. Construct a family tree if the information is available.

Practice constructing the family trees of your class.

Study the early pioneers in your area who may be buried in the cemetery. Sources of information include town histories, biographies, old maps, photographs, private letters, interviews with senior citizens, diaries, newspapers and public records.

Map the distribution of graves in the cemetery. Is one section of the cemetery older? Is the cemetery arranged alphabetically? Are there family plots? Are any graves seperated by chain or fences? Are these family plots? Sometimes people were buried together if they died of a certain epidemic.

How Old?

Usually you can tell the age of the people buried in the cemetery from the tombstones. Often the age will be written right on the stone. (e.g., 62 years, 3 months and 25 days). If not, the age can usually be worked out by subtracting the birth date from the death date. Here is a great math exercise. Dates and ages often appear in one of these three ways.

Calculate the ages of all the people in the cemetery.

Place the ages of the people on your distribution map. Is any pettern evident? Do you have a lot of deaths in any one year? Look in the local histories. Were there any epidemics or disasters that year?

Who is the oldest in the cemetery? Who is the youngest?

Are there more older than younger? Graph the number of people with the same year of death. Did more people die in the 1800 to 1850's, the 1850's to 1900's, the 1900's to the 1950's, or the 1950's to the 1970's?

How Related?

Often the headstone will tell how the people were related, for example, "the mother of," or "the wife." Try to trace families only from the stones. Watch out for name changes through marriage.

Occupation:

Sometimes the occupation of the person can be told from his stone. Compile a list of all the occupations discovered from the stones. Supplement your list from the local histories and research. How have occupations changed from one century to the next?

Study one period in your local area. Research local development and history. Create a period room or a play. Try some of the crafts of that period.

Historical Events and Famous People

Are there any famous people buried in the cemetery? What evidence of historical events can be seen in the cemetery?

How many soldiers are buried in the cemetery? In which war did they fight?

Research the lives of the famous people buried in the cemetery.

Here is an example:

Henry G. Hartsock

Born

Nov. 7th A.D. 1807

Died

Mar. 7th A.D. 1879

Age: 71 yrs. & 4 mos.

The Untiring Friend of the Negro
in the days of American Slavery.

Epitaphs:

Many of the older stones have "epitaphs", poems or facts about the person buried there.

Collect the epitaphs from the cemetery. Is any one poem used more than once? What does the epitaph tell you about the person? What does it tell you about how others felt about that person?

Cause of death can sometimes be learned from the epitaph. Can you tell this from any of the epitaphs in your cemetery?

Write an epitaph for wome famous Tennessee person, such as John Donelson, James Robertson, or John Sevier.

The Stone:

Tombstones are made from many different materials: granite, sandstone, slate, glass, wood and combinations of these. How many different types of tombstones are in the cemetery? Are there any unusual ones?

Observe the weathering of the stones. Which stones seem to have weathered faster?

Look for the stone carver's name. It is usually found in the lower right-hand corner at just about ground level.

Styles of Stones:

Tombstone styles are as many and as varied as the people who are buried there. The carving, shape, and style of the lettering offer a study in themselves. Many of the designs on tombstones are symbols and can be traced to Biblical or classical references.

Changes in beliefs about death can be seen in the styles of the stones. James Deetz, an archaeologist, made a study of the changes in the 1600-1770 tombstones in New England, and found that as the Puritan attitudes declined, the style of the carvings moved from death heads (skulls) to angel heads.

What are the different styles in the cemetery?

Does any one style or design seem more prevalent?

Read some books on symbols used on tombstones. See the appendix for a list of books.

Learn about people who study tombstones and burials for a living, such as archaeologists, and paleontologists. Show a film about an archaeological dig. See the appendix for some suggestions.

Discuss what the archaeologists of the future will discover when they excavate a graveyard or home of our times. What will have been preserved? How will they interpret whay they find?

Environmental Experience 3: The Trip to the Cemetery:

In preparation for the trip to the cemetery, first get permission from cemetery officials for the visit. Discuss many of the aspects you hope to cover and things you hope to find. Since there is so much that can be done with the information from a cemetery, it might be suggested to divide the areas among the students; do only a few activities or restrict the trip to information gathering and rubbings. If possible, obtain a map of the cemetery from the custodian or church. Then you can study which areas you hope to visit. Since information retrieval is one of your major objectives, it might be helpful to design a form to be used by the students. Included is a sample form.

Tombstone rubbing is a good way to decipher some of the stones that are harder to read. Almost any light-weight paper can be used. Sometimes even tissue paper is used, but the best for strength and economy is newsprint. The end of a roll of blank newsprint can usually be obtained from your local newspaper printing office for free. Cut this paper into sheets about 18" by 36". A large box or bag will keep the paper neat during transport.

Instructions for rubbing:

Step 1: Pick out the stone you wish to rub. Remove any leaves or debris from the surface.

Step 2: Carefully tape the paper to the stone using masking tape. If possible extend the paper over the edges of the stone so that crayon marks do not get on the stone.

Step 3: Lightly rub the paper with a crayon or charcoal so that the letters will begin to raise. Dark colors make the best rubbings, but light colors are interesting for art displays. Continue rubbing lightly over the paper until the letters are clear being careful not to rip the paper. After the letters appear, stop rubbing so as not to color them in. Recessed letters rub much better than raised ones. Granite stones do not weather as quickly as sandstone, and therefore make better rubbings.

Step 4: Carefully remove the rubbing and pack for transport.

Step 5: To bring out the letters more when you have returned to the classroom, you can lightly outline the letters with a crayon or pencil. To fix the rubbing, spray it lightly with a charcoal fixer or hair spray.

Have cameras available for student use. Take pictures of stones you cannot rub. Pictures taken in early morning or late afternoon come out better because of the shadows.

Materials:

- Blank newsprint
- Crayons or charcoal
- Masking tape
- Pencils and recording sheets
- Scissors
- Large box or file for transport
- Charcoal fixer or hair spray

Environmental Experience 4: When You Return

After the trip to the cemetery, compile your information, trying as many of the activities as you like. Make a display or bulletin board of your findings for other classes in the school. Write up a short local history of the data you have collected. Draw pictures of the cemetery and the designs on the tombs. Mount and display your rubbings. Visit other cemeteries and compare your findings, tracing designs and carvers, from one cemetery to the next. Have your class take a younger class to the cemetery or around the school yard and teach them how to make rubbings. Visit a local historical group and present your findings as a program.

INFORMATION SHEET

1800-1899 (19th Century)				1900-1973 (20th Century)			
Full Name	**Birth**	**Death**	**Age**	**Full Name**	**Birth**	**Death**	**Age**
1.				1.			
2.				2.			
3.				3.			
4.				4.			
5.				5.			
6.				6.			
7.				7.			
8.				8.			
9.				9.			
10.				10.			
e.g., John Doe	1834	1881	47	e.g., Rich Smith	1903	1965	62

Group the ages of the people whose names you recorded:

0-10 ________ 51-60 ________

11-20 ________ 61-70 ________

21-30 ________ 71-80 ________

31-40 ________ 81-90 ________

41-50 ________ 91-100 ________

During what period did most people die? 19th Century? ________

20th Century? ________

What could be some possible reasons for this difference? ____________________

____

____

2. The Old City Cemetery:

Obtain a listing of all of the grave sites form the caretaker. The Historic Landmarks Association also has a "Walk Through the City Cemetery." Find the graves of the Revolutionary War soldiers buried in-the Cemetery. See how old each was when he died. Two children of signers of the Declaration of Independence are buried in the Cemetery. (man and wife.) Look up their fathers and see where they came from and where they were living when they signed the Declaration of Independence.

Look at the old records (back to 1841). See what people died from in the early days of Nashville. Are these the same things that people die from today? Why were odd names given to things people died from in those early times?

See if you can find the following: Street names that were named after people. School names that were named after people buried in the Cemetery. The graves of Mayors of Nashville. The first school teacher in Nashville. The school teachers on the Adventure, the first whitechild born in Nashville. The main leader of the Fisk Jubilie Choir. The first soldier to fall during the Civil War. The man who gave the name to the flag,"Old Glory." The story behing the floodlight over the grave of the young girl who killed herself by leaping into the Cumberland. The story behind the carved rock tools on the top of the tomb of a man named Kane. The grave of Miss Lizzie Elliott who wrote "Early Times in Tennessee." A grave of someone born in another country, in another state.

There are many other questions that can be asked about the people buried in this Cemetery; as to causes of death, why so many children died, what environmental problems caused sickness and death (Cholera, etc.), what was the average age of men dying, of women, etc. The locan cemeteries will reflect the history of the area and should be used in the study of the community.

IV. Some of the other activities that can help teach the history of Nashville and Tennessee can be tied into the studies of transportation, religion, food, clothes, industry, recreation, education, local government, social events, medicine newspapers and agriculture. The following is an attempt to intergrate all subject areas into a basic concept of the early "Making Of A City."

I. The early pioneers had to use the land for all their needs

A. Language Arts

1. Reading:

Stories of pioneers coming to this area, building homes, adventures, using the land (The Pioneer Twins)

2. Creative Writing:

Stories--"Who Might Have Lived on This Land"
"Food the Pioneer Ate"
"A Day in the Life of a Pioneer Child"

Poems--Haiku-using as themes the many natural products to be used by the pioneers

Letters--A pretend letter from pioneer child to friend back East
Letters to historical societies asking for information on Nashville history

Scrapbook--Using all materials written on unit

B. Social Studies

A visit from Tennessee Landmarks Society with their special program for schools

The family in pioneer times--jobs, responsibilities, leisure time activities

Suggested questions to be discussed:

1. What jobs might a pioneer child have to do?
2. Do you do any jobs like those at your home? Why or why not?
3. In what way did a pioneer woman help her husband in his work? What might the children do to help?
4. How did the season affect the amount of work to be done?
5. What kinds of jobs were done in the winter?
6. What activities that were donsidered work in pioneer times

might be considered leisure time activities by most people today? (hunting, fishing, hiking, boating, horse back riding)

7. What did a pioneer family do for fun?

Transportation

8. How did the pioneers travel?
9. What were most towns built on a river?
10. What was it easier to ride a horse or walk than to use a wagon?

Food

11. What types of food might the pioneers have?
12. What needed foods could they not provide for themselves?
13. Where would the first seeds to plant come from?
14. How might they keep food and meat fresh?
15. What foods did the Indians give them?

Clothing

16. What kinds of clothing did the pioneers use?
17. Where did they get the material?
18. How did they color it?
19. How was it sowed?

Government and Law

20. How did the pioneers obtain their land? (land grants, etc.)
21. What types of early laws were there?
22. Who enforced them at first? Was this a good way?
23. Why did the pioneers come to the Nashville site? (Study the story of the adventure and overland route of the Robertson group.) (need for more land, looking for furs, looking for a better way of life)
24. How did the first settlers here know about this particular site? (Saltlick) (Demonbreun and his trade)

C. Science Use experiments as much as possible.

25. Why did pioneers plant certain crops around Nashville?

Soil-Climate Experiment

Test the soil in school yard. Bring in soil samples from children's yards, nearby vacant lots, and other spots. Check list as to plants that can grow with that type of soil.

26. What crops were planted by the first pioneers? For what were they used?

27. What effect did planting the same crop over and over again have on the land? (loss of minerals, less yield of crops, less cover on land might cause erosion and loss of what little top soil is left)

Clearing the land can also cause erosion.

Experiment 1

Start planting seeds in pots. As a plant comes up, pull and replant the same seeds in one pot and a different plant in another. Record amount of growth of each plant.

Experiment 2

Find slope nearby, one with cover, one without. See how water has washed the top soil from uncovered slope.

Make two box slopes in classroom and experiment.

(reference-conservation activities)

Select an eroded spot in the school yard and restore it.

28. How did the pioneers prepare the land for planting? (Cutting trees, clearing stumps) How? (Plowing land) With what?

29. Why did Squanto tell the Pilgrims to put a fish in with each corn seed?

30. What effect do we feel today because the pioneers wore

out the land? (Have to use more fertilizer, loss of good top soil in erosion-more grazing of cattle in Tennessee and less growing of crops)

31. What crops were new to the pioneers? How were they used? Which did the Indians give them?

32. What animals were used by the pioneers? For what use? (furs, travel, food, etc.)

Did this use affect the natural community?

(over hunting of beaver, buffalo)

33. What natural plants were used by the pioneers and Indians?

(Drinks: Sassafras, black birch, sumac-some of many

Dyes: walnut, maple bark, hickory, poke berries-some of many

Medicine: heal all, jewel weed, witch hazel

Tooth brush: dogwood stem

Tools: hickory, ash-these were used because these woods absorb shock. Basswood bark for rope

Foods: wild berries, maple and hickory sap for sugar, wild greens, lambs quarters, poke)

Experiments: Dye some material with native dyes (Let's Dye Like an Indian","Pioneer Dyes of the Smokies") Try experiments with woods in regard to those that absorb shock: get boards or dowels of different types of wood-hit a rock with each and see which wood lessens the shock. Tap a maple or hickory tree and make sugar. Check neighborhood for wild foods-mulberries, dandelion greens, poke salad, and others. ("Edible Plants", "Using Wayside Plants")

Building Materials

34. Which was best? Why?

Try experiments with different woods to see which holds up best in weather.

35. What materials, native to the area, were used in the construction of a cabin? Where might they find them?

36. What had to be done to the native materials to make them ready for use? (clay for chinking-stones for fireplace)

37. In this area what "outside" things had to be brought in? What could be traded for these?

(Brought in: metal, some food, tea, shot and powder, spices
Traded: salt, furs, extra food)

38. What other minerals might be traded?

39. What woods are more native to this area?

D. Math

Land grants were usually made in acres.

Some possible problems to be worked are:

40. How large is an acre?

(Take children to school yard and have them mark off an acre.)

41. How small would a cabin be and still fill the need of a family? (Measure beds, tables, etc. and make a floor plan of a cabin. This can be used in art to make a model.) Allow for size of logs.

42. How could pioneers or anyone find out how many boards there might be in a tree? (Use Biltmore stick and measure board feet in the trees on the school site.)

43. What might the yield of a crop on an acre be? How much would feed the family? How could they sell or trade?

44. What would be the trade or sale value of salt and furs? Figure out a chart of worth to be used in trading?

45. How long might it take a pioneer to plow an acre field in terms of how fast the mule or oxen might go?

46. How many miles might a horse travel in a day? A boat? A wagon?

E. Art

Model of cabin

Model of covered wagon

Start mural to be worked on throughout unit on Growth of a City in cut paper, mosaic, or paint.

Make a permanent one for hall in one-inch tile. (free at stores)

Pictures of pioneer life

Dioramas of family life

Leaf prints of trees used by pioneers

Scrapbooks to hold all things done on unit

Contact paper mounts on wild foods

Paper mache animals and models

Famous paintings of pioneer life

F. Music

Early folk music telling of pioneer life ("Sweet Betsy from Smokey", "Dan Tucker")

Write songs about the early land

Learn Tennessee State song: "Homeland Tennessee"

II. People began to group together for mutal help

A. Language Arts

1. Reading

Stories about people working together, life inside a fort, a roof raising

Stories about jobs: trapper, blacksmith

2. Creative Writing:

   Adventure stories--"The Night the Indians Came"

   "A Trader Comes to Town"

   Write about a roof raising party, a square dance

   Letters--To friends telling about meeting Indians, visiting an Indian village, life as a worker in some trade, trip down the river

B. Social Studies

Workers in the fort

People grouping together for protection

1. How might they help each other?
   a. Protection
   b. Those who are better at some skills can do only that
   c. Some jobs too difficult for one man to do--raising a roof, putting up a barn, harvesting a large crop
      Crops come in at different times.
2. Some form of government
   a. Tax man--laws about land being developed
   b. Some form of judge
   c. Traveling preacher
   d. Need for soldiers, for Indians, and others. Someone to take charge

C. Science

3. What types of land might be selected for a fort? What wood was best for a fort? Why?
4. What materials went into the guns used?
5. How did the early guns work?
6. What were some problems in using them? (damp powder, didn't fire true)

7. How was a smooth bore different from a gun of today?

8. Why do today's guns shoot straighter than smooth bores?

9. What "machines" were used to get tall poles up in forts or barn or house?

   Experiment with different types of machines and weights to see which would do the best job.

10. What water was needed for a fort?

11. How can you test for clean water? Do experiments.

12. What is the difference in rain water then and rain water today? Could the pioneers use rain water? How would they catch it?

13. Why were low places that gathered water not good to have near a fort? (fever, insects)

14. How do we take care of these problems today?

15. What health problems might arise from people living in a fort?

16. How did they handle water, sewerage, garbage?

D. Math

Possible problem ideas

17. How much land was needed for a fort? For living quarters?

18. How many trees would it take to build the walls of a fort?

19. How much powder would it take for the guns? (per gun)

20. If a pioneer lived 8 miles from the fort, how long would it take him to get to the fort in case of a raid? (by horse, foot, wagon)

21. How many men would it take to raise a barn beam? (size, etc.)

22. If a barn has X number of beams, how long would it take to build it?

E. Art

Model of fort

Pictures of life in a fort or town

Models of tools used

Water wheel

F. Music

Folk music of period

III. Groups of people allowed for specialization

A. Language Arts

Read stories about different jobs done in a pioneer village or stockade. Learn the difference in those workers and present day workers.

Write stories about different jobs, then and now.

Write about why one person could not do everything and how people were paid.

B. Social Studies

1. What special jobs were needed as people came together to live? (Doctor, gunsmith, storekeeper)
2. Which of these jobs are still needed today?
3. How were these jobs done?
4. How were things different in a small town? village? city? (Doctor did vet's job as well, also dentist, etc.)
5. How did having certain people do special jobs help all of the people? (more skill, more time to do the job well)
6. What jobs might take more training then could be found in a small village or town? (Doctor, etc.)
7. Why would a school possibly be better where there were more people?

8. Why would money rather than goods become important as a town grew?

9. What would have to be done about paying officers, elected by the people?

10. Where would this money come from? (taxes) How?

11. Who sets the value of money? What is it backed by? Why was paper money considered not as good as coins?

12. List jobs or services in order of their importance--first for a town in olden times, then for a city today. Why would you place them this way? (Debate) Where would materials needed for these jobs come from? Would this answer change the order on the list?

13. What important things would a village or town need at first?

14. Has specialization become greater or less in a city? What jobs are the same? Near the same?

C. Science

15. Where might a doctor find medicine in pioneer times?

16. Which medicines that were found in nature are still used?

17. What did the Indians teach the pioneer doctors about medicines?

18. How and why would a blacksmith or gunsmith have to change the temper of a metal before he used it in his trade? (Show by experiment)

19. What would the seasons have to do with special jobs? What jobs would be most important in spring, fall, winter or summer?

20. How would weather affect a small town?

21. What clothes were worn in relation to the weather? Which are best?

22. Would a larger farm growing one crop for many people affect the land more than a small farm? What about the affect of grazing on a land?

23. What animals were needed by people in a village? Are these animals still useful in today's cities?

24. How did the weather affect the animals?

25. How did salt lick affect hunting for the pioneers?

26. What minerals might the pioneers find around Nashville and what must they bring in for use?

27. What types of machines would have been used in a pioneer town? (mill, crane, block and tackle)
How were they used?

28. How would the pioneers locate water? How would they get it out?

29. What would be used for light? Where would they get the materials?

D. Math

Money--old and new

30. How was the value of a coin decided? How were they counted?

31. Why did standard measurement start? What was used before? Show by personal measurement of each child. (See lesson plans on personal measurement and pabing) Make a distance wheel. (see directions)

32. How did they find their way in the woods? (use a compass) Make a map of the school yard. Use with other maps later in unit.

E. Art

Pictures (life size of different jobs)

Add to mural

Models of blacksmith shop and other places of business

F. Music

Folk music based on jobs, etc.

Make up topical songs.

V. Looking At The School Community

Each community around a school has its own brand of history. There may be historical markers, unusual street or area names, interesting old houses and some older people still living in the area. One of the best places to start teaching "living history" is with the area by the school.

The first questions should deal with what is already known about the area. By going to early maps, and prior knowledge of teachers or children that live close to the school or have been at the school for a length of time much can be learned about the houses or businesses that were once built there.

The students would have to get out into the community and ask questions. They might wish to make up a questionare including questions about how long people had lived there, what houses they remember and how the neighborhood had changed. This entire project can go not only into the past but the present and future of that community. The students would have to learn about school boards, council meetings and all the government rules and regulations.

Some of the questions that could be asked include:

Where is the oldest building located? How can the time this structure was built be determined? What were some of the problems of this community when it was new? Are these the same problems now? What have the problems changed? What where the early forms of transportation? How do they differ now? How did the Revolutionary and Civil War change this area? Much of the information gathered can be recorded with pictures taken by the children and booklets to go with the pictures or slides.

Some students might wish to find out the origin of street names. Were they always the same name? Why change them? Why was this area once called "Flat Rock?" Each subject area can be intergrated into this study.

Science: Where do the different building materials come from? What materials that we use today did the settlers have to use? Which did they not have? Why did they not have them? Climate and Geography. What foods that we can get at the store were not available to the pioneers? Why did they not have them? Did they have any foods that we do not have or eat today? Where do the foods sold in the community come from? What conditions are necessary for their growth? How do these conditions affect their quality? What about the packaging? How is it different today?

Land Use: What is the main difference in land used for a warehouse and an apartment? (cost of land) Who tells builders what kind of buildings they can build and how do they decide. (Zoning laws.)

Language Arts: Write about the history of the area, make a walking guide book to the interesting spots around the community. Write poems and stories about the difference between the community 100 years agoaand now. Pretend you lived long ago and found yourself in today's community.

Art: Make a mural that shows the story of the community in symbols, pictures and historical events.

Math: Map the area and the surrounding areas near the school. Figure out what might be built on the open land that would best fit the proper growth of the community. (park or high rise)

When all the materials have been gathered a Living Museum could be built, showing the community a portrait of itself. Old photographs, a giant map with a time line of the students and their relitives showing from where they came, when they moved to the community and the backgrounds as far as could be traced. The map could be surrounded with pictures taken by the students of people and places of today in the community compared with photos from the people's youth and early times

All of these activities can help students to get to know their school community and to make them feel a part of it, a necessary first step to becoming good citizens.

Section B. Folk Tales, Tall,Tall Tales and Superstitions--to read and dramatize

The folk tales of any area usually are brought to a country by people of other lands. Since the early settlers of this area were Anglo Saxon most of the folk lore of this area have been tales that were first told in England, Scotland, and Ireland. These folk stories and sayings are still used in the mountains and many are still told in homes all over Tennessee. Because of the many different backgrounds of people now living in Tennessee it is important that not only these stories, that were here during the early history of the area, be read and told, but also stories that fit into the backgrounds of the students in your class. Because of lack of space only the Tennessee folk lore will be included here but several references for folk lore of such countries as Africa, Scandanavia, Germany, and other places will be included in the Bibliography.

These tales can be used merely to read to the students, or have them dramatize them for the class or the entire school. Interesting discussion with the students on how so many of the folk tales from different countries are a great deal alike, only the characters and settings are changed. The students might "make-up" folk tales of their own, using today's settings and language. The students might check with their parents or grandparents for any stories they might know from their childhood and publish these in a booklet. The following selections are only a few that were told and retold during the early days of our city and state.

Some Folk Tales of Tennessee (Used by permission from "A Collection of Folklore by Undergraduate Students of East Tennessee State University" Edited by Thomas G. Burton and Ambrose N. Manning)

These tales can be used with pictures or be dramatized by the students.

THE FOG[5]

One time a man rode up on his horse and hitched him up in the fog. He went down to the store to get his goods. When he come back his horse was a-gone. He looked all around for him and he finally looked up in the tree, and there was his horse. The fog had lifted and left his horse in the tree.

THE IRISHMAN AND THE WATCH[6]

One time there was a feller goin' along and he lost his watch. He started back to find it and met a' Irishman and asked him if he seed a watch. He said he seen a tick bug and he stomped it. The man asked him to take him to it and he did. He says to the Irishman, "That's no tick bug; that's a time-piece. From now on if you see somethin' like that you pick it up and put it in your pocket and keep it." One day that Irishman found a terrapin so he put it in his pocket. Somebody asked him what time it was and he dug in his pocket and fetched the terrapin. He says, "It's twelve o'clock and it's scratchin' for thirteen."

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[5] Told by Mr. Ernest King, Seymour, May, 1964. He heard it in Sevier County when he was a boy.

[6] Told by a man from Wears Cove who wishes to remain anonymous, May, 1964.

JACK AND THE COWHIDE[10]

One time there was a boy named Jack, and his folks died and left a sizeable piece of land. But when they come to divide it up, it was his two brothers got the land, and poor Jack didn't get heired nothin' but a' old cow. Pretty soon the old cow dies, so Jack didn't have nothin', and then his brothers told him to go into town and look for work. Jack skinned the cow and started out to sell or trade the hide. Ever' house he come to the people told him they didn't want no stinkin' old cowhide.

When it come night, Jack laid down on the ground, and he put the cowhide over him. Pretty soon the sun woke him up, and there was a lot of crows on top of him, a-peckin' away at the cowhide. Jack grabbed one of the crows and made a little cage for it out of willow switches. He thought maybe he could split its tongue and learn it how to talk.

Pretty soon he heared somebody a-comin', so Jack hid in the brush and held the crow's bill shut. It was a couple of robbers, and they was talkin' how they had buried a lot of gold under the fireplace in Sam Lawson's cabin, while Sam was out a-workin' so he didn't know nothin' about it.

After the robbers was gone, Jack walked on till he come to a house, and the man says his name is Sam Lawson. "Well," says Jack, "me and the crow was talkin' about you last night." Sam he just laughed. "The crow says there's gold buried on your place," says Jack, "and I'll show you where it is, only you must give me half." Same laughed louder than ever. "Take half and welcome," he says, "but you two birds have go to do the diggin', because I won't turn my hand to no such foolishness." So then Jack prized up the hearthstone, and sure enough there was a big sack of gold pieces.

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[10] Told by Mr. Otis Allison, Pigeon Forge, June, 1964. He could not remember where he heard it, but believed his grandfather told it (around 1890.)

They split the gold even, but Sam says he will give half of his share for the crow, and Jack let him have it. Sam figured he'd travel around with the crow and find out where folks has hid their money. So Jack walked down the road with three-quarters of the robber's gold wrapped up in this cowhide.

Jack stayed that night at the hotel, and the next day here come Sam, and he's pretty mad. "This fool crow won't talk," he says; "it just goes, 'Quark, quark,' and so I wnat my money back." But old Jack just laughed in his face. "The bird talks all right," he says, "but a man can't understand crow language till he sleeps three nights under this here magic cowhide."

Sam wanted to borrow the cowhide for a few days, but Jack wouldn't hear of it. So finally Sam handed over the rest of the robber's gold, and Jack give him the stinkin' old cowhide. Jack had all the gold now, and he went to Knoxville. Sam took several trips up there to look for him, but Jack was plumb gone. Some say he went pardners with them Knoxville gamblers and got rich, but the folks never did find out for sure.

LADYBUG[4]

A tale has been told that a very old woman, who was thought to be a witch, lived alone with only a cow called "Ladybug" for the company. No matter where the cow roamed in the pasture field, the old woman could bring her running to the house whenever she liked. One day she decided that the cow was getting old and since she lived alone, there was no real reason to keep the cow. She could get what milk she would use from a neighbor.

While at the country store one day, she told the owner that if he saw anyone who wanted to buy a good cow to send them around to her house. The following day, a man came to look at the cow. The old woman came out in the yard and looked up in the pasture field to see if she could spot the cow anywhere. There she was grazing at the backside of the field. The man said he would walk up on the hill and look her over, but quickly the old woman said, "There's no sense of that. I'll call her." She walked out in the yard and lay down in the grass, rolled over and over and yelled, "Come here, Ladybug, Granny's dying." Down the hill came the cow in a trot and stood over the old woman. She nuzzled the cow's sack and the cow moved away. The old woman got up and said to the man, "Well, what do you think of her?" The man replied, "I don't believe she's what I'm looking for." He left the place in a hurry and was convinced that she was a witch.

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[4] This tale was told to me by my mother, Mrs. Alex Varney; it had been told to her by her parents.

I'LL TRY[5]

An old backwoodsman was approaching the city limits when he noticed a sign which read: "Speed limit 25 miles." He had never seen a car and this clnfused him, so he got back on the mule, looked at the sign again, and said, "Well, I don't know if I can make it or not, but I sure will try."

"Superstitions in Hawkins County, Tennessee"

by Madalyn Stair

Weather Superstitions

If it rains while the sun is shining, it will rain at the same time the next day.
If it rains on Monday, it will rain three days that week.
If it rains on Sunday, it will rain three Sundays in succession.
If one sees a redbird, it is a sign of rain.
There will be as many snows as there are fogs in October.
If an owl hoots high on the mountain, the weather will be fair;' if it moves to lower lands, foul weather is approaching.
The presence of thick, tight shucks on corn indicated bad weather.

Good and Bad Luck Superstitions

You will have good luck if you
find a four-hole button

---

[5] Told to my husband, who told them to me.

57

find a pin and pick it up

always put your right sock and shoe on first in the morning

see a bluebird

look at the new moon over your left shoulder

find a red ear of corn

You will have bad luck if you

count saw teeth

hit someone with a broom

turn a chair around on one leg

sit on a table

rock a chair with no one in it

find a pin with the point turned toward you

kill a cricket

find a frog on your window

sweep dirt out of the house after dark

burn sassafras wood

sweep under a bed with someone sick in it

step over a stick

a rabbit crosses in front of you

count the teeth in a comb

Superstitions Concerning Medicine

To remove the pain of a sting, put snuff on it.

To cure hiccups take nine sips of water without breathing

To help rheumatism pains, carry an Irish potato in your pocket.

Miscellaneous Superstitions

If your ears burn, someone is talking about you; throw salt in the fire and he will have a toothache.

If you set your shoes together straight, you will prevent bad dreams.

If you sweep under a person's feet, he will never get married.

Rain on your wedding day indicates the tears you will shed.

If the hem of your dress is turned up, kiss it and you will get a new one.

When you see a robin sitting still, make a wish and count to 100; if he hasn't flown, your wish will come true.

If your left hand itches, you will receive money.

Don't comb your hair on New Year's Day; if you do, the well will dry up.

RIDDLES

("Way Down Yonder On Troublesome Creek" by James Still,1974)

Way down yonder at the forks of Troublesome
  I found a pile of timber;
I couldn't stack it, I couldn't whack it,
  For it was awful limber.

Sawdust

Old John Snipp has two heads and a dandy pair of legs, and as a cup-up he has never met his match. He's as strong as iron; still you can handle him with two fingers.

Scissors

Nobody under the shining courts of
  heaven has seen it,
It can whistle but can't talk;
It can make you cry and dry your eye.

Wind

What travels the roads standing on its
head and never takes a drink of water?

Horseshoe Nail

Ready to walk, long tongue, no talk.

Shoe

My pappy gave it to me, though it belonged to my grandpaw.
Despite my having it, my grandpaw kept it. And proud as I am
to have it other people use it more than I do.

My Name

Two legs have I
And what will confound:
Only at rest
Do they touch the ground.

Wheelbarrow

They're put on the table, cut and served, and never eaten.

Playing Cards

I have teeth and yet can't eat,
Can't crunch corn or bread or wheat,
Still I'll fix you fairly neat.

Comb

Words and terms used by early settlers can be very interesting. Many of the words we use today have their origin in early times. One activity might be to look up the origin of words that are in common use, now-words that were used by early pioneers. Another activity would be to find some words (examples listed below) that are not used today and use them in a story or make believe letter to a friend in 1776.

SAYINGS OF A PASSING ERA

(from"Echoes Of A Passing Era" By Harold Stephens)

Rue back- This is an old expression applied to backing out of a trade, and seeking to recover what had been traded.

Get up a dust- This means for one to quickly and swiftly depart, or the description might be, "He got up and dusted."

Back side of next week- Meaning the latter part of the coming week.

If push come to shove- An old expression meaning if conditions go from bad to worse.

Dominized- A folk expression among some old timers for dominating or domineering, or it might be applied to a woman who has hen-pecked her husband.

Talking in a trot- An expression I heard an elderly Baptist preacher use who lived in Southern Illinois. He was referring to the fact that he was a fast talker in the pulpit.

A slow grin- Meaning one who is catching on to a joke very slowly and mildly.

Hard tack- The leftovers of the popcorn that parched but failed to pop.

Poke for paper bag or sack, as, "I brung it in a poke."

Grabble for digging, as, "I'm gonna go out and grabble a few taters for dinner."

Right smart for any sizeable quantity or distance, as, "I could see a right smart piece," or "He had a right smart of apples."

I wisht I had a never an expression for registering surprise, as when the old cow comes up with twin calves, and the owner says, "Well I wisht I had a never, that old brindle cow's got twin calves."

Fit to be tied, as, Before a nervous condition, he got able to go back to work as he was fit to be tied."

"Worth your salt" is an old expression usually applied to one who earned his wages.

"Now you are choppin' in my cotton," meaning agreement, or approval expressed.

High tailing it, an expression used in connection with fleeing, with the implication of jumping some rail fences along the way by placing one's hand on the top rail and springing over turning one's rump high in the air.

The Story of Our City

A Play for Children
by
Frances Sweeney Brandon

Nashville City Schools
Nashville, Tennessee
October, 1958

THE STORY OF OUR CITY

A Play for Children

Presented by a Third Grade Class
Sylvan Park School
March 15, 1958

Nashville City Schools
Nashville, Tennessee

THE STORY OF OUR CITY

Cast

(In order of appearance)

Speaking Chorus	Ten or More Voices
All	
First Voice	
Second Voice	
Third Voice	
Treble Voices	
Narrator	
Sam Rains	Son of Mr. Rains
Mrs. Rains	Wife of Mr. Rains
Martha	Daughter of Mr. Rains
Mr. Rains	Pioneer
Colonel James Robertson	Founder of Nashville, Father of Tennessee
Robertson's Men	Pioneers
First Man	
Second Man	
Third Man	
Fourth Man	
Fifth Man	
Others	
Matilda	Pioneer
Sarah	Pioneer
Ann Robertson	Nashville's First School Teacher
Dora	Pupil
Martha	Pupil
Elizabeth	Pupil
Ed	Sentry
Frank	Sentry
Indians	

INTRODUCTION

This play, entitled THE STORY OF OUR CITY, is the direct result of the study of the early history of Nashville by my third grade class at Sylvan Park School. The class was most attentive each day to the reading of the booklet NASHVILLE TODAY AND LONG AGO. They enjoyed discussing the story and brought items such as a coon skin, coon skin caps, old gourds, crock jars, and other things related to pioneer life. Later, several of the best readers took the booklet home and practiced reading aloud their favorite parts of the story. The children, also, from time to time, told about things they had seen in Nashville that were related to our story. When the time came to give a program in the auditorium, we decided that we would like to do a play about Nashville.

The play was written to give every child an active part. Strangely enough, it was the children who suggested the characters that should be included in the play. There was a short stocky leader-type boy in the class for Colonel Robertson. There was a taller girl, more mature than the other children, who could take the part of Ann Robertson. There was a little boy to play the Rains' son and a very tiny child to be his sister.

The play is based on the overland expedition of James Robertson and others who founded Nashville. The incident of their meeting the Rains family is emphasized, since it is especially appealing to children.

In order to push the narrative forward and to add a certain solemnity to the play, a speaking chorus is used to introduce each act. The chorus and the attack on the fort provided opportunities for all class members to take part. The words of the narrator served to give necessary background and to tie the scenes together.

The class did the stage set and costumes. Things which the children had brought during our study were used as stage props. The art work, which included a log cabin painted on heavy construction paper and mounted on a portable chalk board, was done by the class. The flaming arrow was made of cardboard with fluted red crepe paper attached.

The children loved doing the play. We gave it for an assembly program in the school auditorium and repeated it for an evening meeting of the PTA.

--- Frances Sweeney Brandon

September 30, 1958

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The action of the play takes place in a cove in the Tennessee wilderness, on an upland ridge in Tennessee, and in and near Fort Nashborough.

THE STORY OF OUR CITY

Soft music suggesting a forest is played as the Narrator and the Chorus enter. The Narrator sits to the left of the stage and members of the Chorus sit on the right. Choir robes are worn by members of the Chorus.

PROLOGUE

The Chorus stands.

All, speaking: Hear the story of our city ...

Where we stand today,
An ancient tribe did dwell,
Older than the Indians,
As old, perhaps, as the Pharaohs!

First Voice: The Mound Builders lived and died on this soil.

Second Voice: A river flows through our city,
We know it as the River Cumberland.

Third Voice: Always animals came to the river,
To drink the clear water,
To lick the salt from the salt springs,
Which flowed into the river.

First Voice: The traders called this place the Great Salt Lick.

All: The animals came in great numbers to the river.

Second Voice: The buffalo ...

All: Great shaggy beasts.

Second Voice: The deer ...

Treble Voices: Animals of grace and beauty.

Second Voice: Great furry bears ...

Treble Voices: Wild swans and turkeys, too.
Squirrels,
Racoon ...

All: And more buffalo.

First Voice: The Indians came to the river,
To hunt,
To fish,
And to get salt.

Second Voice, telling a story: This was the hunting ground
For many Indian tribes.
The Indians did not want
White men
To come to live,
To plant corn ...

The curtain opens on a scene in the forest. Two or more children do a brief Indian dance consisting of sixteen bars of music taken from Dagger Dance, an exerpt of the Opera Natoma by Victor Herbert. As the curtain closes the music dies away and the Chorus picks up the narrative.

Treble Voices, dreamingly: Wild wonderful woodland,
Lovely birds flying,
Fawns leaping,
Lovely in summer,
Lovely in autumn.

All, commandingly: Hush! Hear the story of our city!

The Chorus is seated.

ACT ONE

Scene I — A cove in the Tennessee wilderness.
Late afternoon. Autumn.

The Narrator stands.

Narrator: The year is seventeen seventy-nine.
The place — the wilds of Tennessee before it became a state.

John Rains, a famous hunter and explorer, is taking his family through the woods to find a farm-site on the Cumberland River. John Rains has a wife, a son, and a daughter. It is late October ...

The Narrator sits.

As the curtain opens, Mrs. Rains is making meal bread patties. She is kneeling by an open wood fire. Sam enters, coming from the thicket. He is wearing a hunting shirt, leggings, and a coon skin cap.

Sam: Ma, I'm hungry. Is supper ready?

Mrs. Rains: No, Sam. Not yet. The bread must bake. Can you get some more wood for our fire?

Sam: Yes, Ma. (Crosses to edge of clearing to pick up wood-sticks.)

Martha, entering with a basket of hickory nuts: Look Ma! I've found some of the best hickory nuts. And (turning to Sam) I've found a bee tree, too, Sam!

Mrs. Rains: Good girl, Martha. When your father comes, he'll smoke out the bees. (Takes small gourd from tree branch.) See, our honey gourd is almost empty.

Sam: When is Pa getting back, Ma? He's been gone three days already. I'm worried. (Puts wood on fire.)

Martha: Oh, Sam! Don't worry. It takes a long time to find a buffalo, kill it, skin it, and bring back the meat.

Mrs. Rains: Yes, Martha is right. We must be patient. And brave.

Sam, looking at the corn cakes: Ma, are we going to have just cornbread for supper ... again! I'm hungry, real hungry. I'm wantin' meat to eat.

Martha: Here, Sam. Eat some hickory nuts. They're real good. (Offers basket.)

Sam sits down and cracks a nut on a stone, nibbling appreciatively.

Martha, picking up the water jug: I'll go fill the water jug before it gets too dark, Mother.

Mrs. Rains: Good, Martha, but watch out for snakes. You know your moccasins are thin.

Martha: I'll be careful, Mother. (She leaves scene.)

Sam, quickly rising and coming close to his mother: Ma, I've got something to tell you. I don't want Martha to hear.

Mrs. Rains: Yes, Sam, tell me. You do look worried.

Sam: Ma, when I was trying to trap a squirrel today, I saw wood-smoke. I'm sure I did.

Mrs. Rains: What direction, Sam?

Sam: Toward the East. Over in the ridges.

Mrs. Rains: It couldn't be your father. He went North of here.

Sam: It might be Indians. Unfriendly Indians, Ma.

Mrs. Rains: Oh! We won't tell Martha. Here, let's keep this fire low. I'll spread the embers out. (Takes stick to stir fire, looking worriedly toward the left.)

Sam: I wish Pa would come home.

Mrs. Rains: He'll come, Sam. He'll come. We must be brave.

As the curtain closes, soft music suggesting anxiety is played in the backbround.

Scene II -- The Same

As the curtain opens mother and children are seated closely about the fire. They have crude wooden spoons and wooden bowls in their hands. The stage is in darkness except for the fire.

Mrs. Rains: Here, Martha. Hold your bowl. (Fills it with stew.)

Martha, delightedly: Oh, Mother. (Smells deeply over bowl.) It's rabbit stew! You didn't tell me you had rabbit to eat.

Sam: Meat! Oh, Ma, I'm so hungry for meat. How did you get a rabbit?

Mrs. Rains: Well ... I thought you'd be pleased. I caught the rabbit in that little trap your father made for us. Hold your bowl, Sam.

Martha, eating: It tastes so good, Ma. I wish Pa could have some.

Sam: It's great! (Jumps up. Listens intently.) Wait! Did I hear Pa's hunting horn?

They all stand, listening and waiting. A hunter's horn blows from a distance off stage.

Martha: It's Father! I know it is!

Sam: Oh, yes. That's Pa's horn all right.

Mrs. Rains: I'll put the corn cakes nearer the embers.

Martha: Let's put on more wood; make it cheery.

Mrs. Rains: No, dear. Don't build up the fire. I'd rather you'd not make it bright.

Mr. Rains enters, carrying an old flintlock gun and a great pack on his back. He has a powder horn on his belt, and a deer's antler.

Mr. Rains: Hello, folks!

All: Welcome, Father. Hello! Are you tired? Did you see any Indians?

Sam: Let me help you with this pack. (Assists him.)

Martha: Oh, Father, you got a deer! Now, I'll have new moccasins!

Mr. Rains: Yes, Martha. I brought you the antler. (He hands the antler to Martha.)

Martha: Thank you, Pa. (She skips about happily.)

Mrs. Rains: Here, sit down. We were just eating. I'll fill your bowl.

Mr. Rains: Good! I haven't eaten all day. Thought I smelled stew.

They sit around the fire.

Sam: Pa, I must tell you something important.

Mr. Rains, chewing: Yes, son?

Sam: I saw signs of ... (Hesitates) ... Well, I saw a lot of wood smoke today.

Mr. Rains: Wood smoke? Which way, son?

Sam: Over the ridge. To the East. (Points.)

Mr. Rains, stroking face thoughtfully: To the East, you say? Could be a scouting party from Virginia. Could be Shawnees. Or (sighing) it could be a band of unfreindly Indians.

Martha, drawing close to her mother: Oh, Mother. I'm afraid.

Mrs. Rains: Will we break camp tonight?

Mr. Rains: No, Mother. We'll keep the fire low. Early tomorrow I'll walk toward the ridges to see who it is. You must keep hidden.

Sam: Pa, please let me go with you. I'm almost a man.

Mr. Rains: Yes, Sam, you may go.

Martha: Oh, Sam! I'd be scared ...

Music suggesting anxiety is played as the curtain closes.

ACT TWO

Scene I — An upland ridge.
Late afternoon.

The Narrator stands.

Narrator: Colonel Robertson is called the founder of our city. He led a group of young men over the mountains from Virginia and North Carolina into the Cumberland Valley. The men drove cattle, sheep, and hogs through the wilderness. They wanted to make a permanent home on the Bluffs of the Cumberland. You will see Colonel Robertson and some of his men in the next scene. The year is 1779.

As the curtain opens, Colonel Robertson walks on the stage. He is carrying a pack on his shoulders. Following are a group of men. The stage, with a variety of stumps and vines, looks wild and untravelled.

Col. Robertson, looking around: We may find water at the bottom of the ridge.

First Man, stumbling: What a climb! Let's make camp.

Col. Robertson: Better think of water first.

Second Man, entering: What a day!

Third Man, entering: My moccasins are thin and my feet are sore. (Sits and rubs feet.)

Fourth Man, entering: What I'd give for some home cookin'!

Fifth Man, entering: I just saw a deer ... over the hill. (Indicates with head.)

Third Man, still rubbing feet: Why didn't you shoot him man?

Fifth Man: Tried to. But my powder was wet. Mighta knowed it. Got wet all over in the creek this mornin'.

Several: What luck! Mine's wet, too, I bet. Wish we had deer for supper.

Col. Robertson: I've got some dry powder. (He pats a powder horn.) Look for water, men. (He motions to two. The men leave, saying "Yes, sir" in a respectful tone.)

Col. Robertson: Get wood. Build a fire. We need to dry out these wet clothes.

Men: Yes, sir.

The men pull up limbs and stumps. One has a small ax; others use hunting knives. One makes tinder with his knife.

Col. Robertson, settling on a stump: How many cows did we lose in that ravine today?

First Man: Five, I believe, Colonel. We tried to bring them back. They lost themselves in the underbrush.

Col. Robertson: I know. (He shakes his head.) We'll need those cows in the settlement.

Two men hurry on stage.

One says: Found a spring, Colonel! Have some fresh water, sir. (Offers him a drink from a gourd.)

As the colonel drinks, a hunter's horn is heard nearby. The men become alert and reach for their guns.

Third Man: Sounds like a white man's signal-horn.

First Man: Wouldn't be an Indian.

Mr. Rains and Sam enter, holding up their right hands in Indian fashion of "Friends." Colonel Robertson steps toward them, smiling.

Col. Robertson: Hello, John.

Mr. Rains: Glad to see you, Colonel. Where are you headed?

Col. Robertson: We're going to the Bluffs of the Cumberland. We're going to make a settlement. (The men shake hands.)

Mr. Rains: This is my son, Sam.

Col. Robertson: Glad to see you, Sam. (Col. Robertson introduces Mr. Rains and Sam to members of his group.)

Sam: We're glad to see you're not Indians.

Mr. Rains: Sam sighted your smoke two days ago. We came to see if you were friend or foe. I knew you were white, because I saw a heifer in the bush today. I figgered it was a party movin' west.

Col. Robertson: Yes, we have a number of cattle. Lost five just today. Part of my party and the stock and pack horses are in the valley. We are pushing on to find a gap to drive the cattle through. We've had bad luck with our heifers.

Sam, speaking to the First Man: Let me see your gun. Would you mind if I held it in my own hands?

First Man: Sure, son. Handle it all you want to. Can you shoot?

Sam: I'm learnin'. (Admires gun.)

Col. Robertson: Are you trappers?

Mr. Rains: No, sir. Not exactly. My wife, and the little girl, and the boy and I want to settle in the Cumberland Valley. We want a good farm real bad. We might like to travel with you.

Second Man: We've found water. Are you thirsty?

Col. Robertson: We will be glad to have you. Spend the night with us. Tomorrow we'll meet up with your family and can all go together. Can your wife cook?

Mr. Rains, smiling: Just taste this venison in my pack. (He unrolls pack.)

All: Venison! Make yo'self at home, sir. Meat for supper!

Fourth Man: Woman-cookin'. Yum ...

CURTAIN

The Chorus stands.

Chorus chants:
Wild, wonderful woodland,
Lovely birds flying,
Fawns leaping,
The wind singing
Through the sycamores,
The elms,
The oak,
And the hickory.

Lovely in summer.
Lovely in autumn.

Hush -- sh -- sh!

Hear the story of our city!

The Chorus sits.

Soft music suggesting contentment is played as the scene is changed.

ACT THREE

Scene I -- Fort Nashborough

The Narrator stands.

Narrator: Colonel Robertson and his men built log cabins and a high stockade on the Bluffs of the Cumberland. They called it Fort Nashborough. They were joined by Colonel John Donelson, their wives, children, and others who came by boat on the rivers. This is how our city began.

Ann Robertson, James Robertson's sister, was Nashville's first teacher. We will now see a typical scene at Fort Nashborough. Ann Robertson is teaching the children. The women are doing the family chores -- washing, churning, and taking care of the small children.

We will also see the dangers that the settlers faced and how Colonel James Robertson proved to be a great leader.

The Narrator sits.

The curtain opens on a scene inside the stockade at Fort Nashborough on the Bluffs of the Cumberland. A log cabin, painted on heavy construction paper and tacked to a large movable blackboard, is in center back. Many women and children are busy with domestic activities. Two have wooden churns and are churning away, making idle talk. Two women are washing over iron pots. One is minding a baby. Ann Robertson is teaching a group of children on stage forward right.

Matilda: My butter has almost come. (Peeps under cloth approvingly.)

Sarah: I think mine'll never come!

They have large crock bowls, and in a few minutes begin to ladle out one batch of butter, very engrossed.

Teacher, to a small girl: Dora, spell powder. Like gun powder. Pow-der.

Dora, swishing plaits: Er ... p-o-d-d-e-r.

Teacher: No, Dora. It is pow-der. You missed that word yesterday, too.

Dora: Yes'm. I can spell hound. My mother says we're goin' to get a little yellow coon hound, and ...

Teacher, sternly: That will be enough. Study your lesson, Dora. (Turns to Martha.) Now, Martha, say the alphabet.

Martha: A, B, C, ... (Does it perfectly.)

Teacher: Now, Sam, your turn. Say your ABC's.

Sam: A, B, C, D, E, ... Aw, Miss Robertson, I can't get all that book larnin'. Let me jes' go out an' shoot squirrels. I'll never waste a bullet, I bet.

Teacher: But, Sam, you need to learn to read and write. Get your sister to help you. (Turns to Elizabeth.) Elizabeth, say the alphabet.

Elizabeth: I know it really good today. (Starts rattling off the letters.)

When Elizabeth has almost finished saying the alphabet, a flaming arrow is fired from off stage above the heads of the people. (NOTE: A bow and arrow from a Junior Archery Set may be used.) It hits the roof of the cabin. The women and children scream. Everyone runs off stage. The white men enter quickly. Colonel Robertson, center stage, speaks.

Col. Robertson: To your posts men!

The men take their posts at vantage points in the fort.

Indians run in front of the stage, yelling and firing. The men load and reload their guns. One or two women and Sam bring additional ammunition. All is excitement and confusion.

One man is brought in on another's shoulders, severely wounded. Two women rush to him with a bowl of water. (The action takes place in rapid succession.)

The Indians fall, one by one, or withdraw.

Col. Robertson, at end of foray: All clear! All clear! Ed and Frank, go on sentry.

The men, women, and children gather around.

First Man: I think we ought to get out of here.

Second Man: I'm going to take my folks to Kentucky.

Col. Robertson, kneeling, handing a gourd to a wounded man: Feeling better? (He turns to the First Man.) Get me a bear skin.

Colonel Robertson and others cover the wounded man with the skin.

Second Man: What do you say, Colonel? Don't you think we ought to leave? We started with over four hundred people. Now there's less than ninety. These Indians ...

Col. Robertson, sternly: All who want to leave can leave. I am staying. My family is staying. We're going to fight it out here. This beautiful country was not intended to be nothing more than a hunting ground. We will make our homes here.

Third Man: I'm stayin'.

Col. Robertson: We are the advance guard of civilization.

Others: We will stay.

All face audience. Narrator and Chorus rise.

All: You have heard how our city began.

First Voice: The story of our city is just beginning.

Second Voice: We are the third great tribe to live here on the Cumberland. First, the Mound Builders ...

All: They disappeared, we know not where.

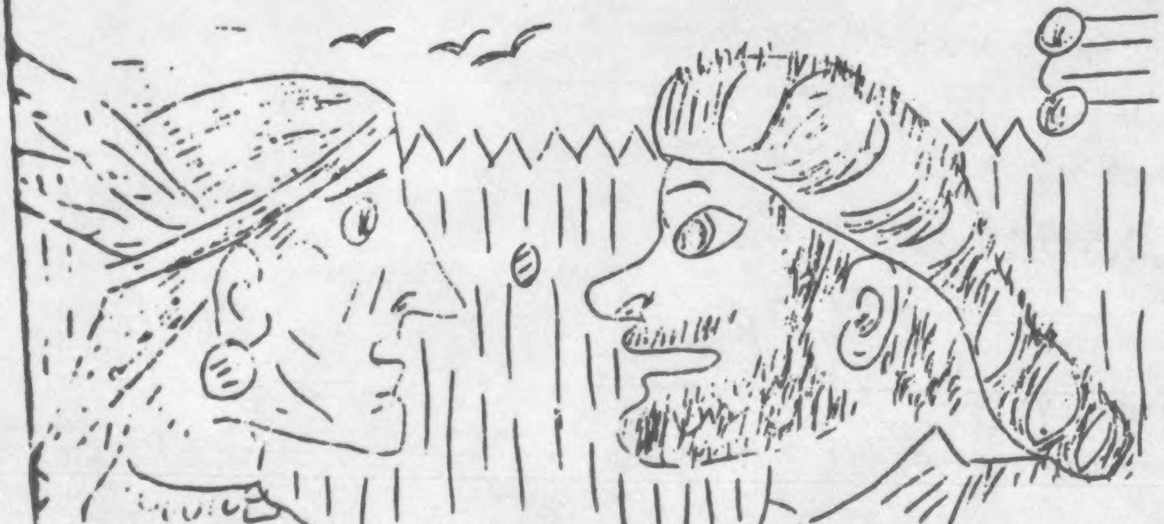
Third Voice: Then, the Indians lived here.

All: The Indians were moved to reservations in the West.

Fourth Voice: And now we have the city of Nashville today.

All, looking at the audience: You will write the story of our city.
You who drink the water
From the River Cumberland.
Listen ...
What will the future be?

Challenging music is heard as the curtain closes.



ACTIVITIES: SECTION B

1. Publish a newspaper in the style of the early pioneers. If an early newspaper can be found it could be reproduced alongside the one done by the class.
2. Have each child write down words that they use or hear used that are considered "slang" or words that they may not know the meaning. Try to find out from where these words came; both by country and by time in history. Many sayings such as: lock, stock, and barrel are still in use and can be traced back to their original meaning. A booklet listing these words by time and country could be produced by the students.
3. An effort should be made to relate things happening today with those that happened during the Revolutionary War and the early history of Tennessee. Current events can usually be related to similar happenings in the past.
4. Have living history skits for the rest of the school. The students can "role play" historical persons from the past, and daily living situations. i.e. a typical school day of the period. The older students can prepare historical skits to be presented to younger students.
5. Special days could be set aside during the school year and instead of the usual carnival or field day activities ideas that were done in the past could be substituted for other activities. These might include colonial social and sports events, folk dances, corn huskings and box suppers.
6. Students can produce a notebook showing what has been and is being done by the community in the area of the Bicentennial. Local papers will be running special articles on activities and local history. These could be compiled into a booklet and illustrated by the

students to be placed in the library.

7. Develop a school community "history" book by getting first hand information from local older people in the style of Foxfire. Tape records and interviews and give copies to the state archives.
8. After finding out the different countries that are represented by the members of the class, plan a folk festival using the songs, dances, and food of these countries.
9. Make up a "birthday book" of the class relating their birthdays to those of famous people and events. Have each student design and illustrate "their" page. Ditto and make copies for each student and parent.
10. Locate the original maps of the school community and see where the important places are in relation to present day development. Make signs (for outdoor use) and place, with permission of land owners and Metro government, on the sites of early homes and important areas. Draw up a map of the community that shows both past and present day important sites.
11. Relate the history of our country to the countries that sent people here to live. Both in culture and historical events.
12. Sponser a community school old fashion spelling bee and "elocution and oratory contests." Put into the classroom activities the "old" way of having Friday be the day students present a poem, etc.
13. Allow committees to present famous poems, stories, etc. that tell early history. This could be done with paper bag puppets, regular puppets, shadow graphs or in skits.
14. Pick out a happening of early times that might have occured in the school community and make a short film. Allow the students to make costumes and props. Each student can be involved if small groups take over every aspect of such an activity.

15. Put up displays showing early times. Have overhead transpariences and master dittos made by the students for use by all of the school.

16. A large map can be made and each day or week a special notation put on it of what happened that day in history. The Trail of Robertson can be followed in this way.

17. The contributions of different ethnic groups that are represented by students in the school could be presented by having different weeks set aside for each group. Lunches, exhibits, stories and special programs provided by representatives of each group in the community are some possible activities.

18. An older student could dress like Uncle Sam and present programs go younger students on history and patrotism.

Stomping ground, usually referred to one's favorite "hangin' out place" and indicated the oldtimers would often stand or squat first on one foot and then the other, and in the winter they might do a little "stomping" now and then to keep their feet warm.

Heft, an old word for lifting, raising, or elevating.

Slaunchways, meaning that which is slanting as "The plank was lying slaunchways."

"We feathered into them fellows" is an expression that may have originated with the old time bow and arrow when a feathered arrow was used.

Section C. Arts and Crafts of the Pioneers

The first artists of Tennessee were the pioneer housewives. They wove homespun yarn into colorful materials dyed with bark, roots, and berries. They took particular pride in the gay colors of their quilts, shawls and rugs, and often made the designs tell a story.

If a pioneer girl was skilled in the use of the spinning wheel, loom, and needle shw was considered a good choice for marriage.

For girls and woman, the appliqueing of a quilt such as the "Tree of Life" quilt, or the creating a delicate needlepoint sampler, were practical as well as artistic talents. The early Tennessee coffin quilt has a border of caskets stitched with the names of family members. As each person died, his casket was permanently moved to the"cemetery" in the center of the quilt.

A lively and imaginative use of applique paint and embroidery produces a very interesting friendship quilt. Birds, animals, flowers and fans are among the figures used in decorating some century old quilts from colorful patches which were furnished the seamstress by friends and neighbors.

The pioneer who fashioned furniture for his house, farm tools for his shop, and perhaps shoes for the family, probably never thought of himself as a craftsman. He was self sufficient because he had to be to survive in a primitive society. He also had the reward of personal achievement for his efforts. If a man's handiwork was good enough for others to seek him oût, he had more reason to be proud.

Some crafts, like blacksmithing and glassblowing, lent themselves to specialization. The trade from a community could support a blacksmith who fashioned metal goods such as ox shoes and fire dogs.

Available materials were used to create the necessities of everyday living. Corn shucks, for example, were used for everything from dolls to chair seats to horse collars. Brooms have been made from sedge, broomcorn, and even oak splits and twigs.

The settler's children were entertained by toys of such materials as corn shucks and stalks, cloth, straw, clay and wood.

"Gritting" corn into meal for bread and riving shingles for roofing were once familiar tasks. Handmade musical instruments like the dulcimer brought some beauty into the otherwise drab existence of the Tennessee highlander.

By the end of the nineteenth century, industrialization in America had changed the old selfreliant manner of living. No longer did a family need to produce most of what its members ate, wore or used. People could buy cheaply the articles they had once made with love and care.

Many of the simple crafts can be done by students. Some modern inovations can help to make the skills a little easier for the children. Some of the crafts that can be done include candle making, both dipping and casting, soap making, weaving with simple looms, broom making, cornshuck and apple crafts, Indian sand painting; diorama making, miniture pioneer scenes, the making of costumes, and many others. A long term project might be the making of an old fashion weather vane for the school site.

It is important to stress conservation practices when you gather natural materials for use in crafts. Be sure and cut carefully if wood is used as one of the concepts to be stressed in learning about the early settlers in relation to today is that with so few people living in this area, there were plenty of natural resources but today we must conserve those same resources.

IDEAS AND DIRECTIONS FOR CRAFTS

Section I. Corn Shucks

"Craft With Corn Hucks" from PACK-O-FUN, August-September, 1961, p. 8.

Gather the husks when green or after frost-killing. If green, spread them in a warm dry place to avoid mildew. Lew some husks whole. Just before using, dip the dried husks in water for about 15 minutes. Drain and use when damp and pliable, but not dripping. When dry, finished articles may be painted with tempera, enamel or household paint. Husks can also be dyed with fabric dyes.

"Materials For Corn-Huck Crafts" from CORN-HUSK CRAFTS, by Margery Facklam and Patricia Phibbs, 1974, p. 5.

Scissors. . . old ones because they'll get wet.

String. . . kite string is good or dental floss or raffia (Palm-leaf) strips. You can tie the doll with anrrow strips of the husk itself, but it is difficult because the pieces are usually short. If you tie the doll with string, you can cover the string with corn husk or raffia.

Water in a bowl.

Corn husks.

There are the basic supplies, but for some other projects you may need glue, glycerin, fabric dye, and florist's wire and tape.

"How To Dye Husks" from CORN-HUSK CRAFTS, p. 17.

Most corn-husk projects look best in natural color, but there are times you may want other tones. For bright and vibrant shades use commercial fabric dye. Put two teaspoons of dye into a large mixing bowl and add very hot water. Add one or two drops of liquid dish detergent, which seems to soften the husks so that they take the dye more evenly. Or you can add a small lump of alum instead of the detergent.

Put the husks in the dye bath, making sure they are all covered. Stir them once in a while as you check for the shade you want. For a light tint, it is often enough just to dip the husks in and out of the dye bath a few times. For deeper shades leave the husks in an hour or more. Rince the husks thoroughly under cool running water before you use them. And wear plastic gloves unless you like green fingers.

For more subtle, earth tomes it's fun to try natural dyes. Probably you have a few valuable dyes in your kitchen now, without knowing it. Try onion skins to dye husks a deep rust color, or beet juice for a rich red. Grapes will give you a beautiful purple, and blueberries, of course, turn out blue. These give up their color almost immediately. Turmeric, a herb in the giner family, can be used for a deep yellow dye.

The marigolds in your garden, or dahlias, or zinnias, when boiled in water, will yield shades from rust ot lemon-yellow. Poplar leaves make a buttery yellow dye, and black walnut hulls can be cooked into a rich black dye. When using plants, whether it be its leaf, flower, root, or bark, fresh or dry, crush or break it and let it stand overnight in water. Then boil the plant parts until the color begins to emerge. Poplar leaves and walnut hulls have to be boiled for hours. Don't forget to add the alum or detergent.

Rinse dyed husks well before you use them.

"How To Soften And Preserve Husks" from CORN-HUSK CRAFTS, p. 24.

Florists, museum display experts, and those in the business of preserving plants know the value of glycerin as a plant preservative. If you have ever used rose water and glycerin on your hands you know of glycerin's softening quality. It works on corn husts, too.

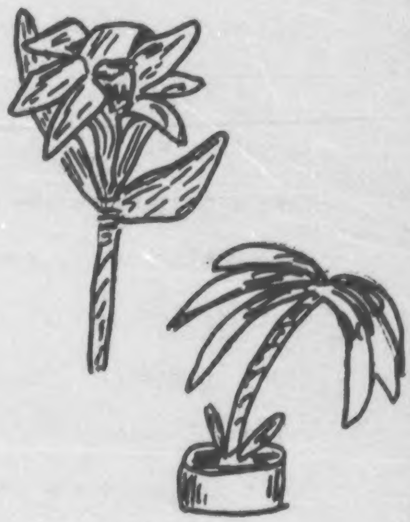
For making dolls or wreaths that are only to look at, it doesn't matter if the husks dry and become brittle. But a corn-husk article that will get more use will last longer if it does not turn brittle. Also, husks soaked in a glycerin solution are easier to braid and fold.

You can buy glycerin in any pharmacy. It's not expensive. Add 2 or 3 teaspoons of glycerin to a large mixing bowl of water in which you are soaking husks. The glycerin will permeate the husk so that, as it dries, the husk retains some of the pliability it had while fresh.

1. Decorations

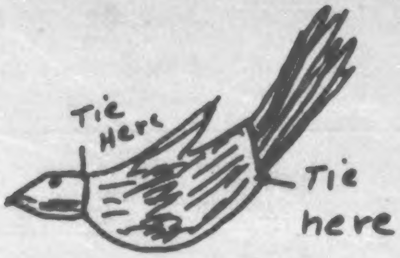
(from PACK-O-FUN, October 1957, p.9.)

For a classroom display or a fall party theme, decorations made of corn husks are fun for children to make and somewhat out of the ordinary.



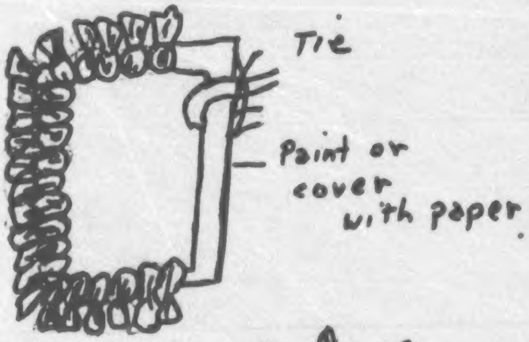
Flowers: Use the whole husk and cut individual leaves to resemble a poinsettia, iris, orchid or peony, depending on the way in which the leaves were shaped as the husk was opened originally. Add wire for stems and husks for leaves. The flowers may be painted or gilded when dry; or dyed and shaped when wet. Husks painted green make good leaves for palm trees or tulip leaves.

Birds: For birds, use a whole husk, preferably one with a bit of stem left at the bottom of a beak. Tie off for neck, stuff with tissue

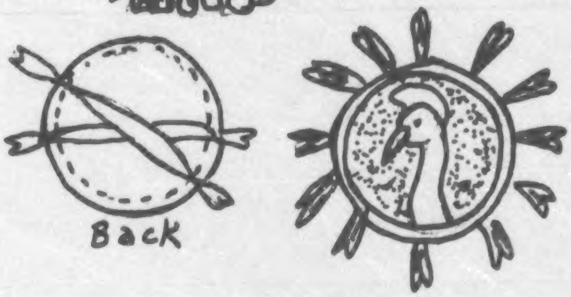


paper and tie again above the tail. Add additional leaves for feathers, if necessary. Paint in bright colors and add wire legs. Several shucks may be assembled for still larger birds.

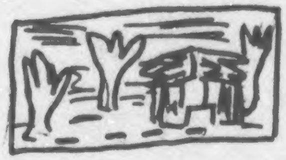
For card table projects you can make animals in much the same way as dolls, using bundles of husks and separating and wrapping sections for legs and tails. Bend limbs into position when wet and pin until dry. (from PACK-O-FUN, August-September, p. 9.)


Tie
Paint or cover with paper

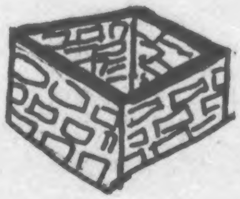
Wall Decorations: To make frame (1), cut a cardboard frame and paint or cover with paper. Wrap damp husks around frame, knotting on outside or tying with yarn. Weight until dry.



For wall plaque (2), cut an even number of slits in rim of a cottage cheese carton lid. Insert husks in slits, bring across back of lid and out opposite slits, leaving ends extending. Glud picture to plaque.

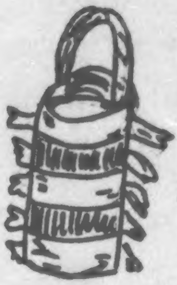


Pictures (3) may be made by gluing pieces of dried husks, some flat and others curled, to dark construction paper background.

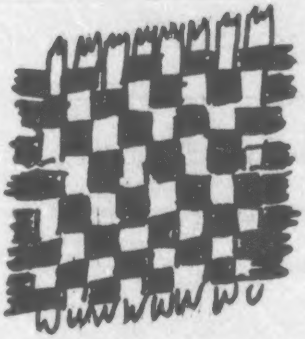


Baskets: For basket (4), cut damp husks slightly wider than openings in a berry basket and weave through the mesh. Overlap ends where necessary and glue together when dry.

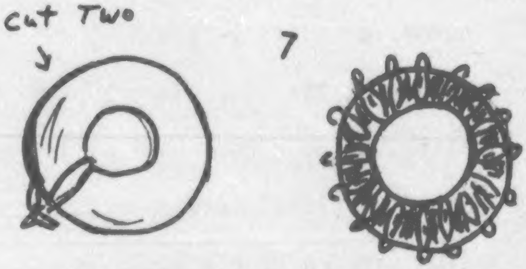
For basket (5), place one husk at back and one at front of a tin can; tie with yard at sides. Push to bottom of can and repeat, overlapping until can is covered. Use rubber bands to hold ends of husks flat until dry. Tie twisted husk handles to uppermost knots.


5

Mats: Woven mats (6) are easy to make. Place ends of a row of husks, cut to desired size, under a weight to hold in place. Weave the cross strips and press mat flat until dry. Push weaving together and sew around edges, or glue to paper backing.


6

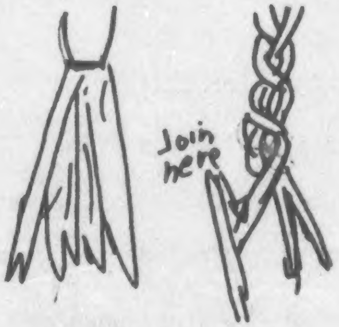
To make ring mat(7), cut two 8" cardboard circles and remove 3" circles at center. Cover one side of rings with paper. Place uncovered sides together and wrap with dampened husks, twisting ends together twice at outside edge and tucking between rings. Overlap husks considerably and shellac mat when dry.



7

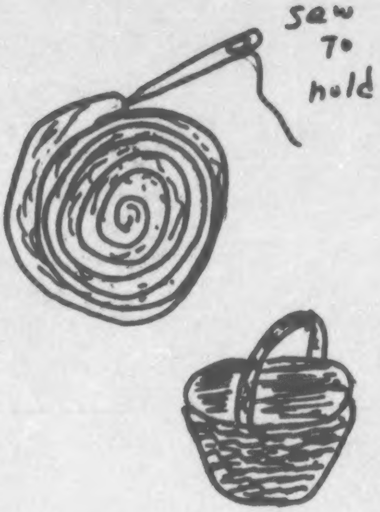
3. BRAIDED PROJECTS

To braid corn husks for mats and baskets, select three rather long dampened husks of uneven length. Fasten together at one end and braid in a simple three-strand braid. Add additional husks as needed



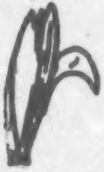
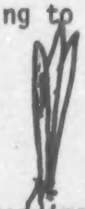
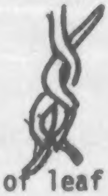
by laying them under the strand you wish to lengthen and letting about an inch extend. Continue in this way until braid is several feet long. Trim off protruding ends along braid.

For mats, sew braid with heavy thread while still damp, coiling as you go. Coil tightly, since the husks will shrink while drying. For baskets, form bowl shape as you sew, and add braided handle. Use dyed husks or paint when dry.



(From CORNSHUCK CRAFTS, By Marguerite Cain Crawford and Marietta Cain Fuller, 1967, p.28.)

Braiding can vary in size according to the use being made of it.

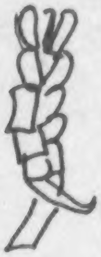
Fine Braiding is made of fine shredding or splitting of leaf (as in illustration.) This leaf should be dampened before spliting. This is the type used to finish baskets at the bottom, and on picture frames. In other words, the rough ends are covered by braiding, thus making it a more finished product.

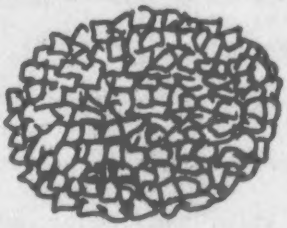
Tie the small piece of husk.

To add. Slip under and hold tight as you pull next strip over. Continue until the desired length is reached. Uneven lenghts at the start will make renewal easier.

Large Braiding uses the entire leaf of the husk, as in the making of rugs or mats.

Each time the braid is lapped over, add a new leaf, letting the base of the leaf extend about 1½ or 2 inches out of the braid. This gives a "rose" or tufted effect.





Whip the edges of braid together, using large needle and Number 8 thread, and using large stitches. The braid must be wet or damp while sewing; that makes it easier to sew and keeps the husk from breaking while pulling your stiches tight. The stiches will loosen as the corn husks dry.

Coasters

Fine-braided cornshucks are shipped into circles. Color may be used to suit one's color scheme. Please see "Roll Method" for another variation of coasters. Flat braiding may be obtained by weighting the moistened braid.

Colonial Rug

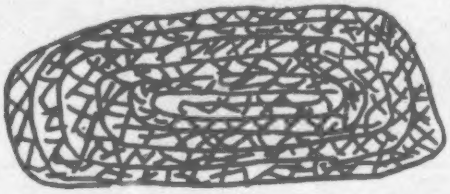
This is a craft which is still in existence. You may see these rugs at famous tourist places where replicas of old Colonial days are depicted.

The most practical uses nowadays would be as door mats, in front of fireplaces, or in dens.

Group methodology, which is considered a great help in development of character and personality factors, can definitely be used in this craft. A small group of three of four persons can make a rug together by division of the work. As one person prepares materials, others braid or sew. This might have possibilities for institutions desiring to develop group potentials.

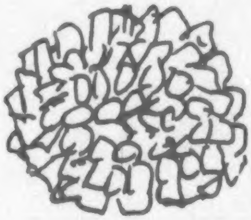
Procedure. Braided rugs made from cornhusks are made exactly like our grandmothers made braided rag rugs. The cornhusk is torn into large strips. Tie three corn husks together and braid.

Completed rug is shown in illustration.



Small circles and oval shapes may also be used to set flower pots on.

Tufted Variation. Tie three cornshuck leaves together about 1½ to 2 inches from the shank or top portion and start braiding. However, as each strand is folded over, add a new husk with the top shank portion extending 1½ to 2 inches above the braid. This makes a very thick braid which is substantial enough for a rug, and the shank extending out makes it appear as a tufted rug.



4. FLOWERS

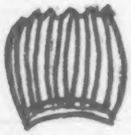
Flowers made from cornshucks brightened the homes of our early ancestors in the cold, long, dreary winter days.

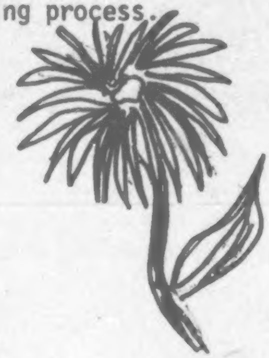
You, too, may want to bring back the Colonial atmosphere by a flower arrangement. In camp, a hollowed log, an interesting piece of branch, roots, or driftwood, a covered No. 10 tin can, or a woven basket, can serve as a flower container or centerpiece arrangement.

Although only a few basic ideas have been given here, the art of flower making is unlimited in its possibilities.

Asters

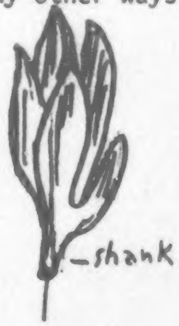
Asters may be made by taking a colored leaf and cutting it in fine strips as illustrated. When the strips dry, they curl as fringed petals. Arrange cut strips around and around the wire stem until the desired size has been obtained. Tie to the wire and then wrap stem. Leaves may be added in the wrapping process.

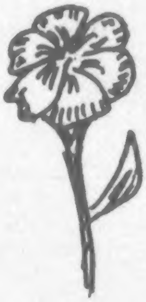


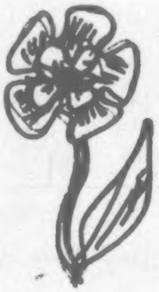


Cornflowers

These flowers are gorgeous. They make interesting floor bouquets, and huge and beautiful arrangements can be placed in planters. Cornflowers make a very showy appearance in the banquet hall, at church bazaars, lodge festivities, sorority and fraternity dances, and in many, many other ways.

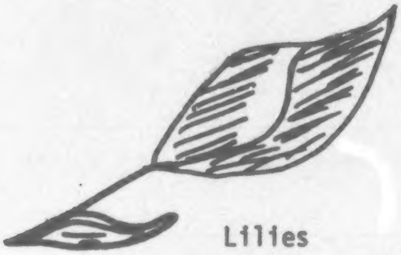






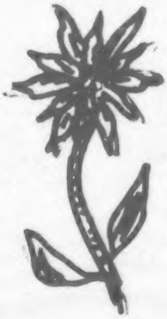
To make these flowers, remove ear of corn from shuck, leaving the shucks on the shank, which should be about two or three inches long. Then take scissors and round off each leaf to form a petal; the inside leaves, of course, being shorter. After all leaves have been trimmed, bend them down and shape them while they are still damp. Wire is pushed up the shank to form the stem. Freezer tape, which is the same color as the natural shuck, may be used to wrap the stem, with leaves being added in the wrapping process.

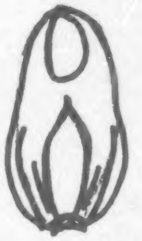
Cornflowers are very easily and quickly made. In fact, if properly prepared beforehand, children can make an entire bouquest within a very short time. Of course, the prettiest corhshucks are gathered early in the fall.

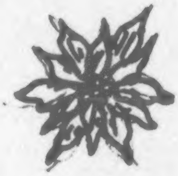


Lilies

Take a large corn leaf and roll it in the shape of a lily. If leaf is too long, trim part of it off. A wire, or a stalk near the tassel end of corn stalk could be used for stem. Freezer tape is very near the color of shucks or stem could even be dyed green while you are dyeing corn leaves. A leaf may be glued in place on stem or wrapped to the stem with green tape of narrow strips of corn leaf.







Poinsettia

To make a beautiful Christmas bouquet of Poinsettias, have shucks dyed a beautiful red and green.

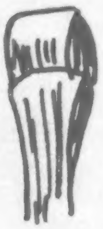
Begin by cutting petals from the dampened leaf, as illustrated; usually a large and a small petal could be cut from one leaf.

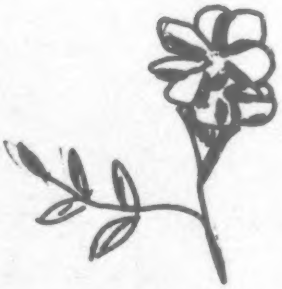
Procedure. Pick up several petals and sew them together in a circle. Continue adding petals until you have the desired size. Then take a wire that is stiff enough to hold up the flower after wire has been sewn to flower. Cut some green petals and sew in such a way that the wire will be covered. Then sew or glue some little yellow folds in center or even the natural shuck strip could be used for the berry or center of flower. See illustration.

Wrap wire with green tape which can be purchased at the dime store. As you cover wire, add a green leaf from shuck.

Roses

To make roses, start with a small shuck which is found nearest the ear, as it has a rose tint and is easy to use. Fold over the shuck and gather to form a petal. Continue making petals, with each row of wider shucks and arrange them around and around until you have a desired size. Each petal or folded strip is tied with string. A small wire may be inserted and freezer tape could be used if flower is natural color, as tape is about the same color as shuck. Crepe paper or green tape may be used. Green leaves or natural leaves may be cut form husk and wound to stem.



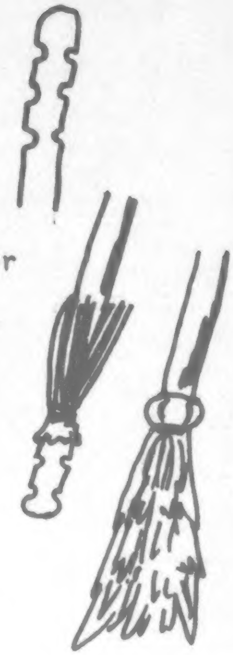


In Conclusion: All objects made from shucks should be given a protective coating of hair spray or a mixture of shellac and alcohol. This will preserve them for an indefinite time.

5. BROOMS AND MOPS

(From PACK-O-FUN, October, 1957, p.9)

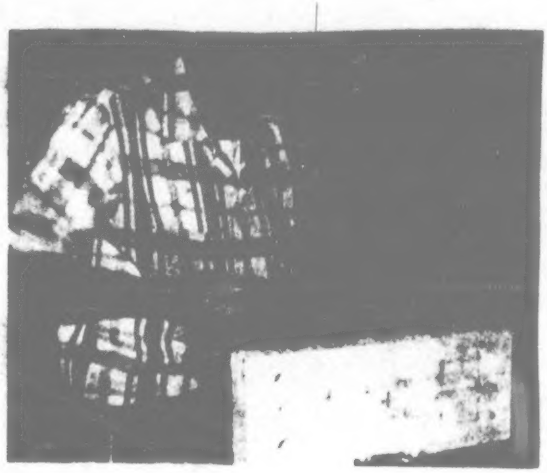
Brooms: Hearth brooms were often made of the stiff outer layers of corn husks, sometimes made to resemble a doll, with a stiff brush for the skirt. To make a more regulation whisk broom, cut pairs of notches in each side of a dowel or piece of wood about 9" long Wrap 8 husks around, pointing them toward the top, and fasten with string or strips of husk. Do the same at other 2 pair of notches. Turn husks downward and tie each tier around handle.



(From FOXFIRE, Volume 6, Winter 1972, Number 4, p.216)

Conshuck Mops:

We heard from a number of people that Mrs. Kate Hopper, who works in the Rabun Gap Graft Shop, knew how to make scrub mops from cornshucks. As we were interested in this subject, we went to investigate. Luckily, she agreed to make one for us, and as she made it, we took a set of photographs so you could see how it is done.

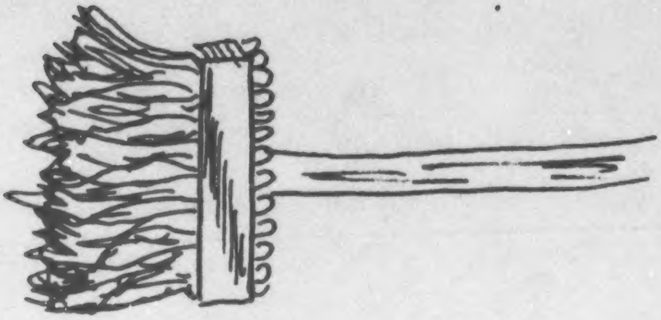


Above left: Mr. L.D. Hopper works on the board for the mop. The board should be 5-½" wide, 13' 3/4" long, and 1-½" thick. The eighteen holes should be one inch in diameter and should be placed in three rows of six holes each.

Above right: Mrs. Kate is pouring water in a tub so she can dampen the corshucks. Water is needed to make the shucks pliable.

Above left: Kate and Jan are fitting the cornshucks through the holes. The loose ends of the shucks are put through first. Above right and middle right: When all the loose ends are through, they should be pulled firmly until they are tight.

Right: Monyah Hopper shows her skill at making mops.



Above trim the shanks and ends to make them even.

Right: Mary Garth demonstrates the effectiveness of the new mop on Kate's porch.

Photographs and interview done by Jan Brown and Mary Garth.
Layout done by Julia Justice.

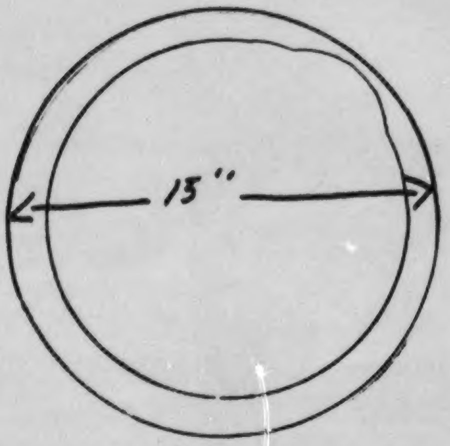
6. HATS

(From FOXFIRE, Volume 6, Winter 1972, Number 4, p. 219-221)

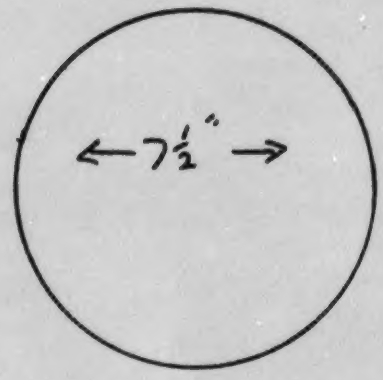
Cornshuck Hats

To make a pattern for the hat, you need to cut the pattern out of a newspaper or a piece of brown paper. Materials needed are stiff buckram, muslin for lining, cornshucks dried in the fall, thread, needle, and pan of water to keep the cornshucks wet.

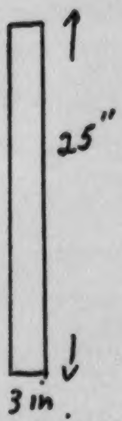
Shuck several ears of corn; discard outer shucks and any shucks with blemishes. Put the shucks in water until they are wet and pliable (about fifteen minutes).



Brim



Top



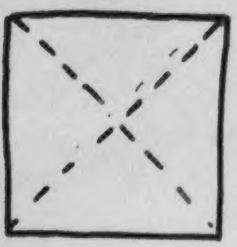
Crown

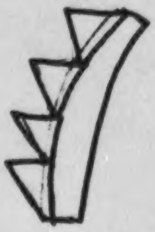
Above: Cut shucks into one and one/half inch squares.

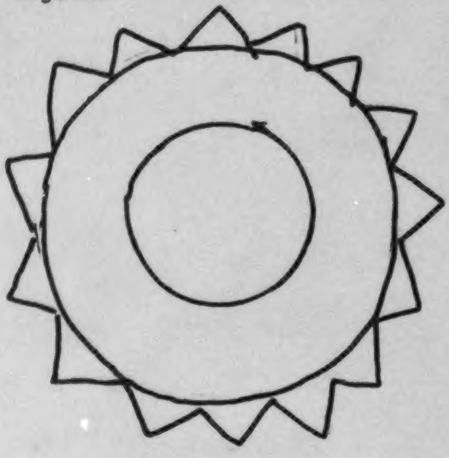
Below left: Take each square and fold in half and then in half again, causing the folded shuck to have a point like the one Mrs. Kelly is holding.

Below center: Sew the shucks on the buckram starting on the outer edge and going into the center.

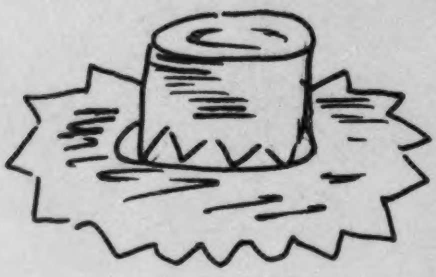
Below right: Sew the shucks on the crown with the points of the shucks downward; then sew the crown together.



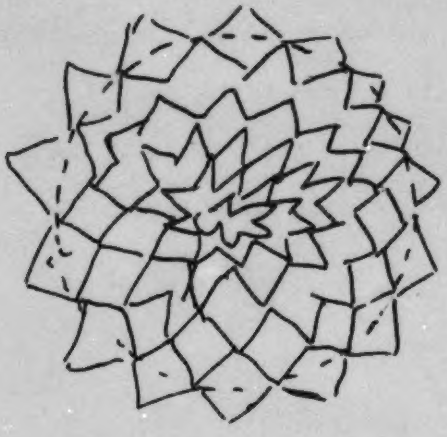




Right: When the crown is finished, place it down on the brim and sew the crown onto the brim.

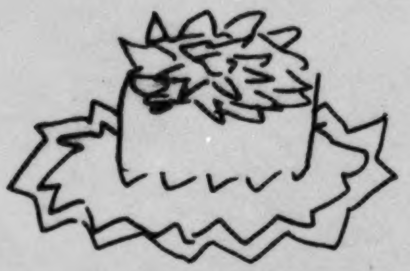


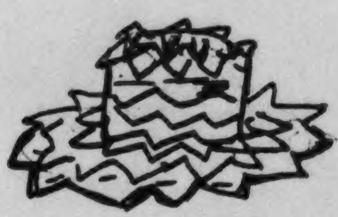
Below: Sew the cornshucks on the top, starting on the edge and going toward the center. You can use the shank for the center of the hat.



Below left: Place the top of the hat on the crown and sew it on. Take the muslin or other soft material and sew it onto the buckram for a pretty lining.

Below right: View of the completed hat.





(From CORNSHUCK CRAFTS, P. 66467)

Choose a hat frame that suits your personality. A Coolie hat may be made from a circle from which a wedge-shaped portion has been removed. Or, you may buy a hat frame or remodel an old one.

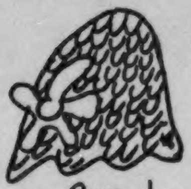
Still, if none of these seem in style, then create your own frame from buckram. Or, you may starch such easily stiffened material as lace, old curtain, etc. A plastic bucket, pot, or pan, and like materials may be used for frame. Cover with aluminum foil and press and gather moistened buckram over it. When dry, the buckram will slip form the foil model, the edges can be trimmed, and you are ready to create the hat.

Corn shucks may be either sewed or applied with clear or millinery glue. Such patterns as square, triangular, scallops, or single leaves may be used. Remember that shucks must be moistened to stitch on and with very little moisture when glue is applied. It is better to start at the center of crown as you apply leaves. Freezer tape may be attached on the underneath side, or a lamé lining can be moistened, applied over same hat form and placed inside the hat as a complete covering.

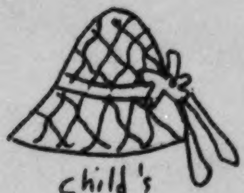
Grosgrain ribbon and cornshuck flowers can be used to decorate the hat.

The "Whimsey" can be created by covering a thin band of cardboard as given in "Wrapping Method." The same hat can also be made as Hot Pads or Mats in Wrapping method. In this instance, you would have double cardboard frames for the "Whimsey" and would progress in same manner by bringing the strip of husk up to top, twisting, and tucking between two cardboard frames. Decorate with roses, bows, leaves, etc.

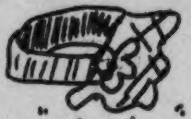
You will really be surprised at how charming you will look in your new creation!



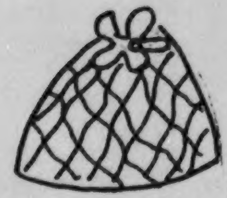
Beach



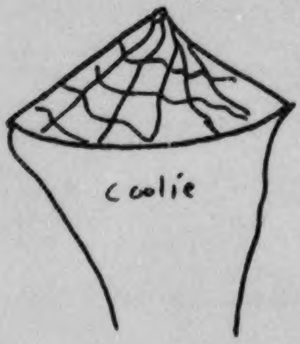
child's



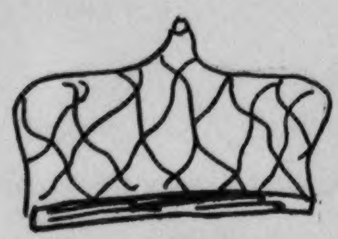
"whimsey"



Beanie



coolie

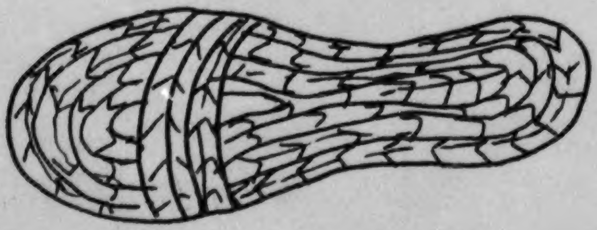


Tam

7. CLOGS

(From CORNSHUCK CRAFTS, p. 68-69.)

Braid cornshucks according to the desired thickness. These can again be braided together to obtain an even greater thickness, thus saving whipping time.



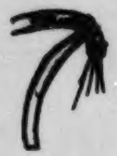
Start the sole with one long strip which is about 4 inches shorter than the foot size. Turn braid and whip together as you form shape of foot. Make the strap and attach by whipping to the soles.

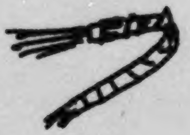
Many styles, such as thong-and-sandals, can be created with a little ingenuity. Decorations or a little touch of color can be added.

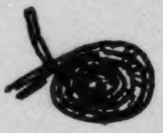
The Roll Method is also used in making Huaraches and is quicker and easier to make. See illustration on the following page. Three leaves rolled together form a more durable sole. Perhaps two would be sufficient for the strap. Twist the roll as you work with it. See Roll Method.

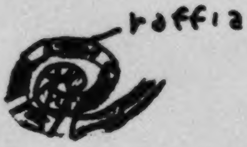
Huaraches can also be made by the "Tie" Method, and they should prove to be a sturdy affair. Campers would like this.

Refer to huaraches to make the toe portion wider or simply use a straight piece for the sole, as in scuffs. However, a single knot made tighter will tend to bring the husks closer together, thus forming the shape of the sole.





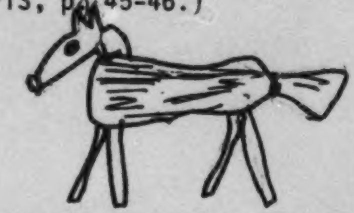




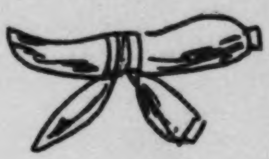
Pocketbooks or Shopping bags can be created from finely braided husks which have been sewn together. Use your own pattern or refer to crotcheting books.

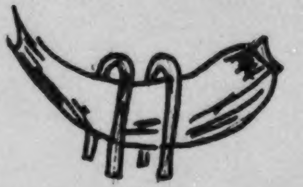
8. ANIMALS

(From CORNSHUCK CRAFTS, p. 45-46.)



A basic structure is the formation of body with two different shucks or pieces of shucks--one curved upwards and the other curved downwards. Tie or wrap in center. Pull one end up for tail and other for head. Divide the ends of the lower shuck into sections for the feet.





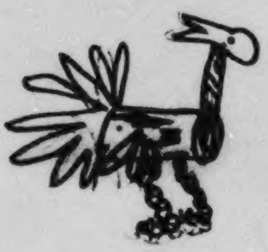
Another basic formation is to take one shuck and bend upward for head-body-and tail. Wrap a piece of wire with shuck for front feet and do the same for the back feet. Loop these over body and wrap.

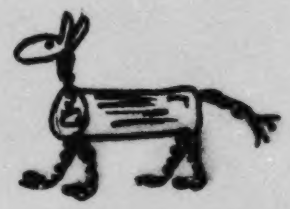
From these foundational structures you can proceed with your own creation!

Pipe cleaners can be wrapped with shucks, a fine braid can be constructed around wire, or rolled husks (see "Dolls,") can form the legs and body of the animal. A loop, prong, or tripod on the feet will enable the animal to stand. A piece of the shank can be used for the head. Other formations include a braided tail, fringed husk for the mane, a strip tied on top of the head for ears, an ear of corn of the eyes, wrapping of body to obtain shape, etc.

An animal may be made completely by the Roll Method. A pin through small square of cardboard will enable the animal to stand.

A portion of a corn cob can be whittled to the shape of the body of an animal. Legs, tail and head can be added. Two animals illustrated with corncob bodies have legs of wire inserted into cornhusk braid so that they can stand.





A Dachshund dog will make a Desk Caddy. Wrap wire with strips of husk. Then bend around a small cylinder form. Hook on some pieces of covered wire or braid around wire for the tail. Add head and neck in various ways. Either cover wire foundation, add corn cob or shank, attach rolled husks, etc.

Animal creations are limitless, indeed! Experiment and create your own!

Animals may be used for What-not shelves, decorative purposes, table centerpieces, banquet decorations, etc.

They are adaptable to all age levels.

(From CORN-HUSK CRAFTS, p. 42-43)

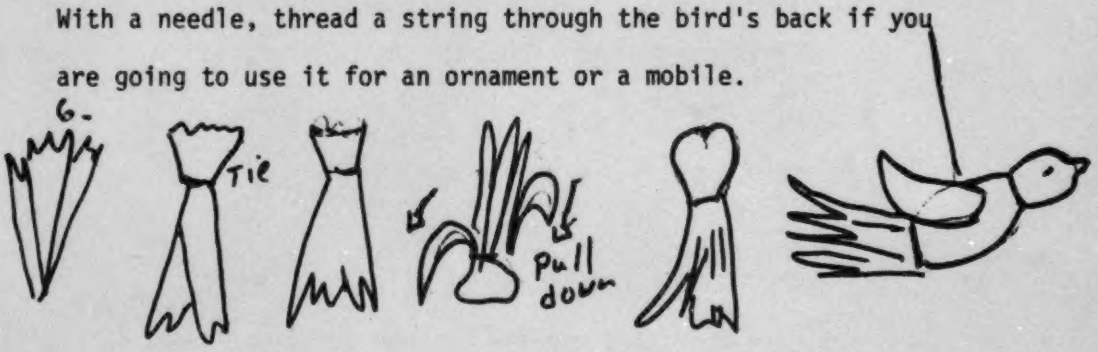
A corn-husk bird can fly on your Christmas tree, become part of a mobile or decorate a wreath.

You begin as you did for the doll. Place five or six husks together and tie them about one inch from the top. Round off the top inch to shape the head and pull the husks, banana style, over the head. Some people like to use a small Styrofoam ball or a wooden bead as the core for a very round head.

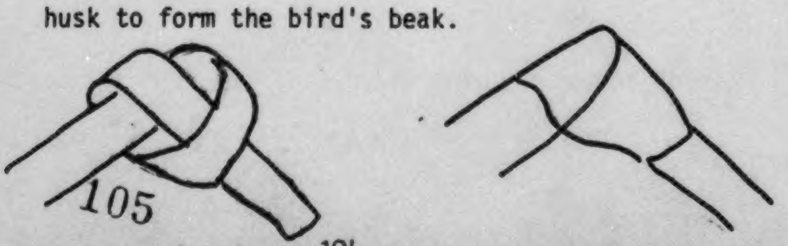
Before you tie the neck you have to add the beak. A beak may look complicated, but it's as easy as tying a knot. Do just that. Take a 1-inch-wide strip of husk and slowly tie a knot in it. Before tightening the know, press it with your fingers to shape and flatten it into a more pointed shape. Then place this knotted beak on the front of the bird's head and tie it in with the neck.

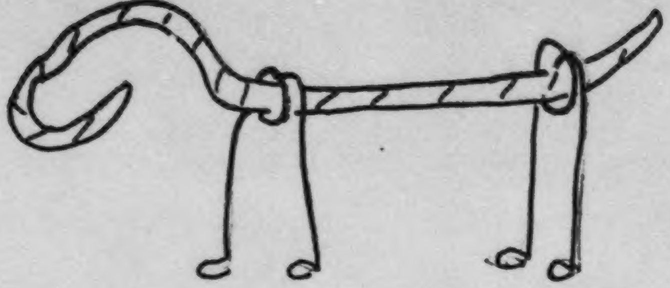
All the ends of the husks from the head will form the body and tail. If it looks as though your bird is going to be scrawny, you may want to stuff it. Again, you can use a Styrofoam ball for a round body, but it's just as easy to add some cornhusk padding and pull the ends of the husks down over that padding and tie them. Cut the tail straight across or into a V shape. Look at a bird picture book to see what kinds of tails birds have.

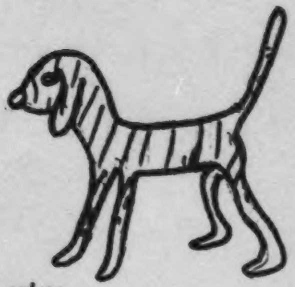
Cut out two wings from another husk and glue them on. With a needle, thread a string through the bird's back if you are going to use it for an ornament or a mobile.



Tie a knot this way in a narrow strip of husk to form the bird's beak.







If you make a framework or armature of pipe cleaners or wire, it is easy to build almost any animal. Twist two pipe cleaners together into a body and legs leaving an end for the tail and making a loop for the head. Using narrow, damp strips of husks begin to wrap the pipe cleaners tightly starting at the bottom of the feet and tail and up around the body. Use string to tie the husks in place sothey won't unwind. Wrap husks around the chest, between the legs, building up the body and covering all the pipe cleaners.

The top layers of the husks should be ties only until they dry and then any loose ends can be glued down. Cut out husk ears or use scraps of felt for ears. Some people like to use a felt-tip ink marker to make the eyes, but you can make them by cutting a very thin slice of a narrow plastic tube. Glue it on the animal's face and put a dot of black paint in the center of the eye and a dab of pink on the nose.

To make the curly covering of a lamb or a poodle or the tail of a pig, tear a very narrow strip of husk and wind it around a toothpick while it's wet. Put a pin or thumbtack in it until it dries. Then pull out the dry curl and wind it around the animal's body fastening it with glue

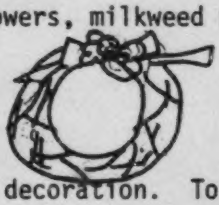
9. BRAIDED WREATHS

(From CORN HUSK CRAFTS, p. 24-25.)

Use glycerin-soaked husks to braid this wreath. Take three large, white husks and tie or staple them together at the top of the husk. Hook the bunch of husks over a nail or have a patient friend hold it as you braid. Use the whole husks for a thick braid or narrower strips for a skinny braid.

Because the husks are short, you often have to add pieces. Overlap the ends as you add new strips and alternate the additional strands so that you don't have all three pieces joined at about the same spot.

If you are making a small, flat wreath you can join the ends in a circle with a staple, or tie the ends together while the wreath is wet. When the wreath dries, glue or wire pine cones, teasel flowers, milkweed pods or ribbon over the joined place.

The wreath  is a small one used for a kitchen window decoration. To make a large braided wreath for an outside door use several thicknesses of husks. Tie the beginning and end of the braid with tough cord. Wire on pine cones and water-resistant ribbon. Rain or snow won't hurt your corn-husk wreath.

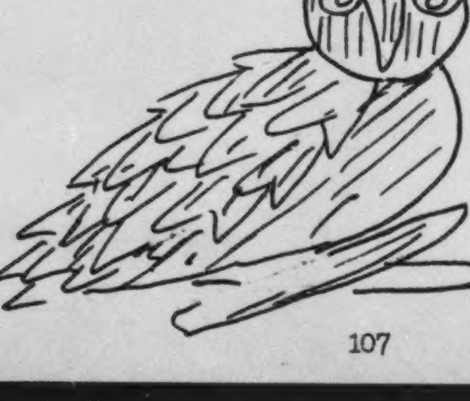
10. CORN-HUSK SCULPTURE

(From CORN-HUSK CRAFTS, p. 37.)

Paper sculpture is a craft used by elementary school children, professional artists and every level of ability in between. Effective for posters and bulletin boards, it is also popular for framed pictures and greeting cards. You can produce more interesting sculptures if you use husks instead of paper because of the husks' texture and color variations. The only thing you have to consider idfferently is the size of your work. Corn husks are small and your sculpture should be easily adaptable to small pieces. For this project you will need only glue and a background board, besides the husks.

Sketch your design and decide what technique you want to use to build your picture. Looped husks can represent the tails of birds, tree tops, flowers, or clouds. Shred the husks, twist them or fold them for variation. To curl husks, wrap a wet strip of husk around a pencil and hold it in place with a thumb tack while it dries. Pull it out into a curl that will last until it is re-wet.

The owl in the illustration uses only cut-out scraps of husks. Some were allowed to dry and curl and others were dried under a weight so they would not curl. Children can make corn husk sculptures with great imagination.



11. DOLLS

(From "The Best of Needlework & Crafts" by McCall's, Vol. I)

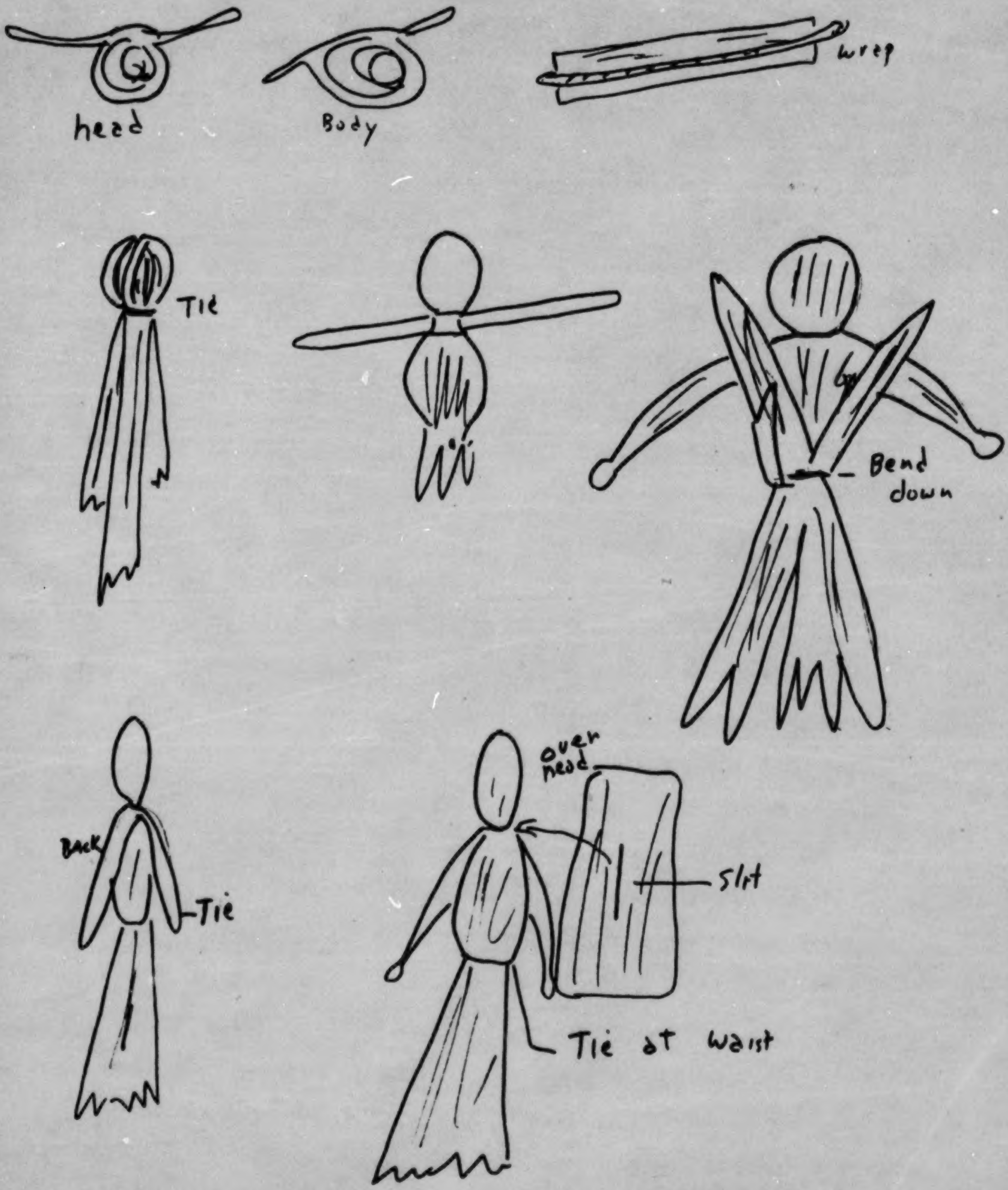
Cornhusk Dolls

Equipment: Ruler, Scissors, Glasshead pins, Sewing needle. Large porcelain pot for dyeing husks. Stick for stirring. Tissue paper, fine, felt-tipped pens or ballpoint pens in red and black. Newspapers.

Materials: Cornhusks, Cornsilk, Dyes (such as Rit, in colors given in individual directions, or as desired). Liquid dish detergent. Household string or fine cord. White pipe cleaners. Brown thread.

General Directions: Soak dried cornhusks in warm water for five minutes, or until pliable. Husks are always worked on while wet. For head, remove husk from water; cut off bottom; tear into strips ¼" wide and wrap tightly into a ball 3/4" in diameter; stick pin in end until ready to use. Do the same for the body but make ball 1" in diameter. For arms, place a pipe cleaner across length of 1" wide strip of husk and roll up husk; turn ends in and tie with small piece of husk 1/8" wide. Using the inner surface of husk for face, fit a strip over the front of the head; give three twists at top and bring down over the back of head, leaving an excess of 3½" at both ends; tie in place with string. Wrap string around twice each time it is used to secure head, body and skirt. Put arms between husk ends of head; add body below and tie at bottom; split husk ends as shown. Remove pins from head and body. Make a skirt by placing narrow ends of husks around waist with bottom ends turning in; tie in place. Add additional layers until desired fullness is obtained (or until doll can stand alone). Trim ends at waist, leaving excess of ½" above string. Measure 5½" below waist; cut off excess and trim evenly

Dolls #1


head
Body
wrap
Tie
Bend down
Back
Tie
over head
Slit
Tie at waist

around skirt bottom. Pin skirt by lapping one husk over another.

Method One For Blouse: Hold husk at narrow end and tear wide end about one-fourth of the way up. With solid portion at front, drape divided ends over shoulders and back; hold in place and tie a narrow strip of husk around waist.

Method Two For Blouse: Slit lenghtwise along center of husk; drape each half over a shoulder and cross them on front and back; tie around waist as for method one. For hair, soak cornsilk in warm water for five minutes; wrap around head in desired hair style; sew to head with brown thread. Leaving pins in place, carefully slip some tissue paper under skirt. Let stand overnight in dry, but not too warm spot. Remove pins from skirt. Paint on features using black and red pens.

Assemble dolls as instructed in individual directions.

To Dye Husks: Heat 1½ gallons of water to boiling point; add ½ package of dye and two tablespoons of liquid dish detergent. Place cornhusks in boiling solution a few at a time (do not crowd) and simmer for 15 minutes, stirring occasionally. Pour off solution and run cold water over husks until excess dye is removed. Place husks on newspapers and let dry until ready to use.

To Braid: Tear husks into narrow strips; soak in water; tie three or more strips together and braid.

Doll With Bag: Follow General Directions for making doll. Arrange hair with a braid at each side of head. For head scarf, use half or less of husk torn lengthwise; tie at back of head. For blouse, dye husks blue; for skirt, brown. Make blouse by method two. For bag, use a piece of husk about 1½" wide; fold up one end as shown; tie top of bag with string. Slit top ends of

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remainder of husk and fold down over one side of bag. Roll a strip of husk and tie around top of bag; tie ends together for handle. Bend arms in position; hang bag on arm.

Doll With Broom: Follow General Directions for making doll. Make blouse by method one. Arrange hair around top and sides of head; make one braid down the back; tie with piece of brown thread to secure. For head scarf, use a half or less of husk torn lengthwise; tie under chin. For broom, roll a pipe cleaner 6½" long in a strip of husk; turn top end in and tie; tie broom bristles around bottom end. Bend arms in position and sew on broom handle.

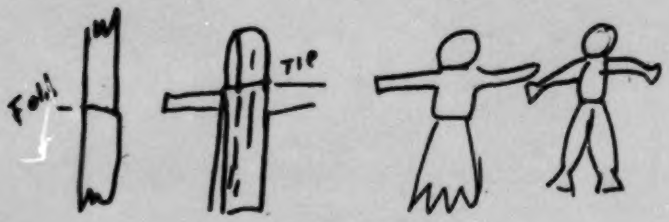
Doll With Headband: Follow General Directions for making doll. Make blouse by method two, using two contrasting strips of husk, dark brown and blue, 2" wide. Hair is worn long and loose. For headband, make a braided strip of husk (in blouse color) and tie in place. Scarf is dark blue. Make bag as instructed for "Doll with Bag."

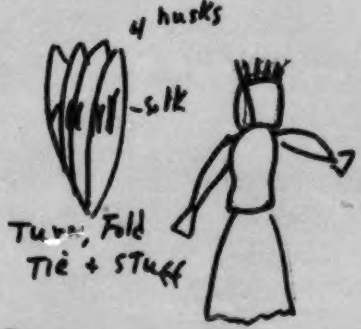
Doll With Hat: Follow General Directions for making doll. Dye husks for blouse, hat and skirt dark red; bag, dark brown; belt, dark blue. Make blouse by method two. Wrap hair around head; sew in place. For hat, coil braided husk in a circle and sew edges of braids together; continue adding braids, shaping side crown. Add brim by sewing braided husk to bottom edge of side crown, encircle twice, sewing in place as you go. Stuff inside of hat with tissue paper to hold shape; pin brim flat on piece of cardboard until dry. Pin on head when dry. Make bag as instructed for "Doll with Bag". Bend arms in position and hang on arm.

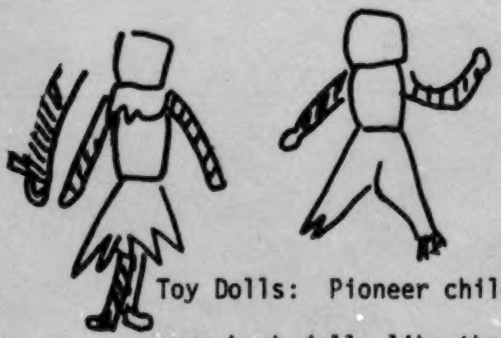
(From PACK-O-FUN, August-September, 1961, p.10-11.)

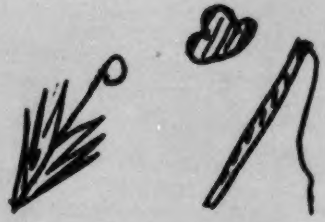
Lapel Dolls, Party Favors: For miniature lapel pin dolls, use piece of dampened inside husk 1" X 4". Fold in two and tie at neck with yarn. Insert husk for arms, tie at waist. Divide remainder and tie for boy's legs; fringe for girl's skirt. Add features.

For party favor dolls, stack up four whole inside husks. Tie at center, catching in corn silk for hair. Turn over, fold, stuff head and tie at neck; then proceed as above, tying off with husk strips. Trim or braid hair; paint features.









Toy Dolls: Pioneer children loved to play with sturdy, dressed corn husk dolls like the boy and girl shown.

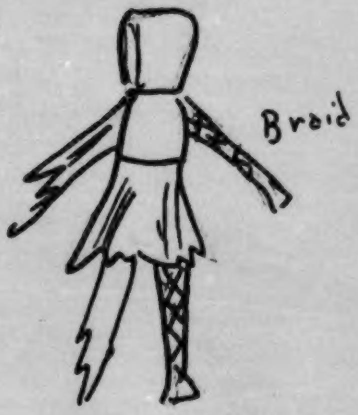
Make a bundle of 16 dampened husks. Wrap at large end with additional husk and tie firmly for head. Separate two outer husks on each side for arms. Cut one to proper length and the other 1" longer. Fold back excess and tie for hands. Wrap arms with ½" strips of husk, pushing starting end under tie at neck and overlapping as you wrap. Tie other end at wrist.

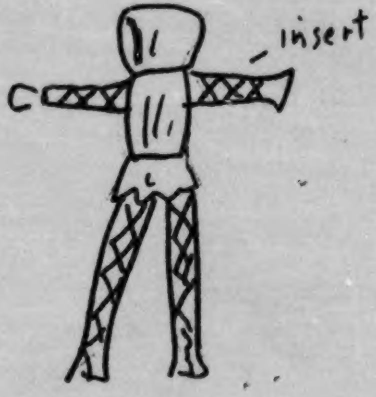
Tie bundle at waist. Separate two inside husks for each leg.

Wrap as for arms, inserting starting end under tie at waist.

For girl, trim remaining 8 husks evenly for skirt. Lay pieces of dyed husk across shoulders for bodice and arrange pointed, dyed husks for overskirt. Hold in place with corn husk belt. Sew braided corn silk hair to head. Parasol is made of short husks wrapped around a straight strip, with free end looped back for handle.

For the boy, separate 8 remaining husks and tie around ankles for trousers. Add belt and bandanna from dyed husks. Give him a braided hat (made like a braided basket) and a husk and string fishing pole.





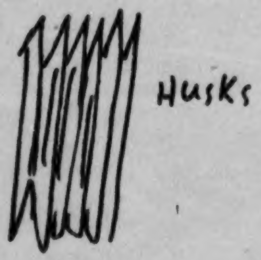
Braided Dolls: These may be made like the toy dolls, with arms and legs braided rather than wrapped. Use 20 husks to form the doll, with three husks for each arm and leg, instead of two. The skirt on the braided doll shown was made by looping back the body husks, instead of adding overskirt.

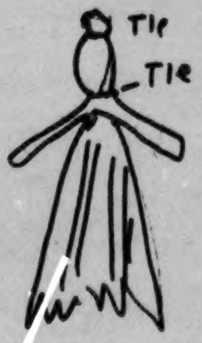
In another type, thick braids for arms and legs are made separately and inserted below neck and into tie at waist. In this case, a small bundle of husks is used for body and head and stuffed to give a rounded shape. Fabric clothing may be added.

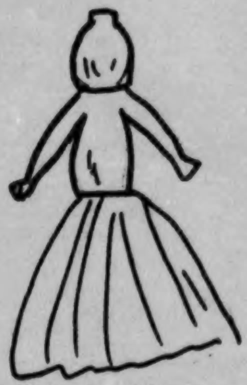
The ful-skirted doll has a skirt made as in forming a braided basket, with an opening at the center which is slipped up over the body and sewed in place at the waist.

Doll Brooms: Small brooms were often made of the stiff outer layers of corn husks and assembled to represent a doll.

Dut dampened husks into narrow strips and gather up a substantial bundle. Tie close to one end for top of head. Tie again for neck. Separate some of the strands for arms and tie at wrists. Thicken center of bundle with additional strips and tie very lightly with wire at waist.

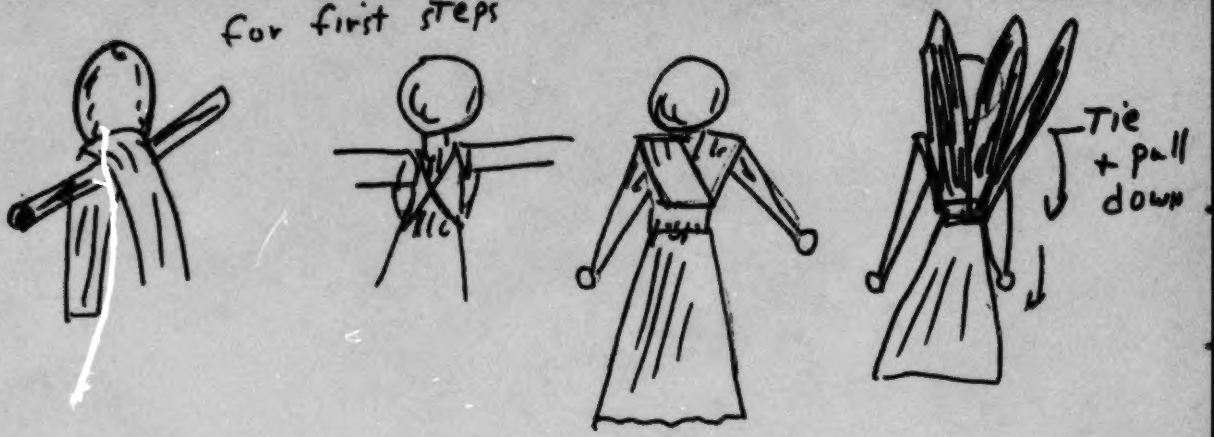






Trim strands evenly at bottom and as close as possible to tie at top of head. Paint features. Add shawl and sash or apron at waist.

for first steps



(From CORN-HUSK CRAFTS, p. 7-9.)

An Indian Doll: As many recipes exist for making corn-husk dolls as for apple pie. No two Indian families made them exactly alike, and you will probably find ways of making your doll unique after you learn the basic steps.

Soak a bunch of about a dozen husks in a bowl of water for a few minutes. The entire process will be worked with wet husks. Choose six large husks and lay them on top of each other with the wide edge at the top.

About an inch from the top, gather the husks and tie them tightly. Cut off the top of the husks, and round it into a head .

Holding the head in your hand, peel one end of each husk down over the other, like a banana, pulling firmly and smoothly. Don't be afraid to pull--the husks are tough. If the head turns out to be smaller than you intended, roll up another piece of husk and push it inside the folded-down husks to add to the size. Tie the husks to make a neck

Make the arms now from tow husks rolled together one on top of the other into a long piece and inserted between the ends of the head husks.

Separate the ends of the husks that extend below the head and pull them firmly apart. Place the arm roll tightly against the tied neck.

Some people like braided arms instead of rolled ones. They are also easy to make. Just tie three husks at the top and braid them, tying off the ends. Insert the braid just like the rolled arms.

Tie the arms in place with a criss-cross over the chest and back. Don't tie the ends of the arms yet, even though they are obviously too long. Wait until the doll is otherwise finished so you can trim the arms to proportion to the doll's height. Now take two more husks and fold each one into a strip about an inch wide. These will be the shoulders. Place one over each shoulder position and cross them over the chest and back. Tie these pieces tightly around the waist.

The Skirt: One kind of skirt is made of long, wide husks laid on well above the waistline, tied tightly and trimmed so that the excess will not show above the waistband. For this, fold another husk into a band about 1 inch wide and tie it over the skirt top. Cut off the skirt at a length proportionate to the doll's size. Then bend the arms down and cut them off at a point about one third of the way down the skirt.

(If you decide to turn this doll into a male, just separate the skirt, wind the husks around the legs, and bend the ends of the legs up for feet.)

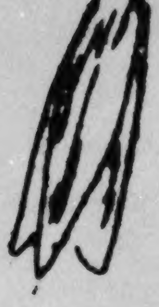
If you let the doll dry now, the skirt will flare out and the will stick out like a scarecrow. Bend the arms any way you like, perhaps folded as though holding something, and tie them loosely until they dry. Put a loose string around the skirt to hold it in place until it dries. Once dry, the doll will retain its shape. (From CORNSHUCK CRAFTS, p. 47-55.)

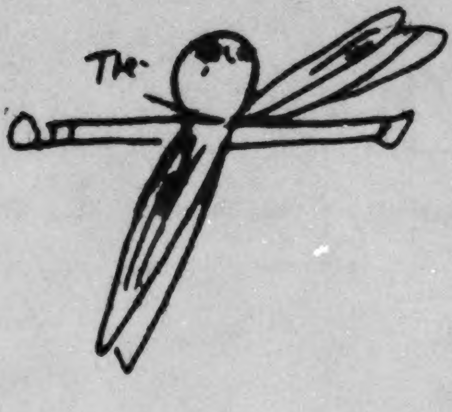
Pioneer children as well as modern children love dolls. First the American Indians, then the early settlers, made dolls from cornshucks for their children. And today, this is still a remembered art.

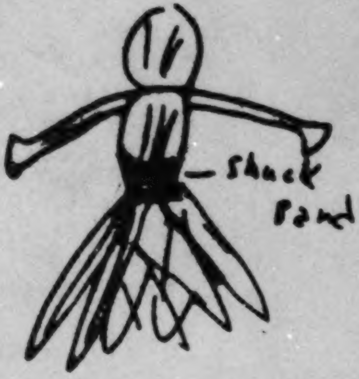
This heritage is rich in producing creative ability in children. Variations include character, story-book dolls, etc. These can all be built from a basic method of your choice.

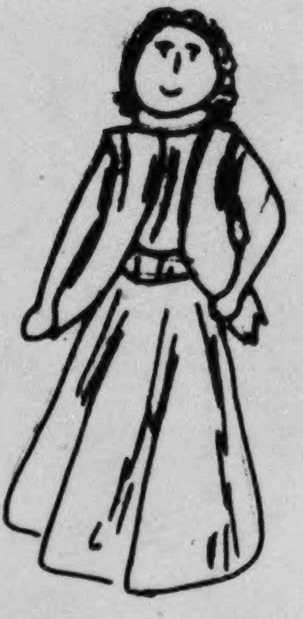
A very simple method is to select a nice shuck. After soaking, tie about an inch from the base of the shuck to form a head. If needed, extra cornshucks or a little piece of cotton can be inserted for padding before tying. Take a leaf and roll tightly for arms, tying ¼ inch from each end. Divide front and back of shuck and slip the arm through it close to the head. For girl doll, insert cornshuck scraps or cotton padding to form a bosom. Tie from 1½ inch under the neck for the waistline. Either an apron, pinafore, or just a neat, narrow strip can be tied on top of this for a better appearance. Trim skirt at the bottom so that the doll will stand. For a fuller skirt or a larger doll, extra leaves may be inserted under the neck with the tips being caught at the waistline. The only difference for the boy doll is the division of the shuck at the waist and the tying of the legs (which may be twisted or plaited), ¼ inch from the bottom.

SIMPLE METHOD #2

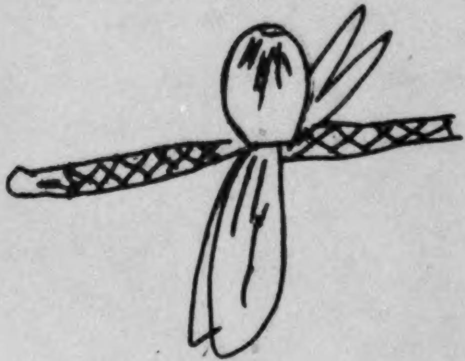


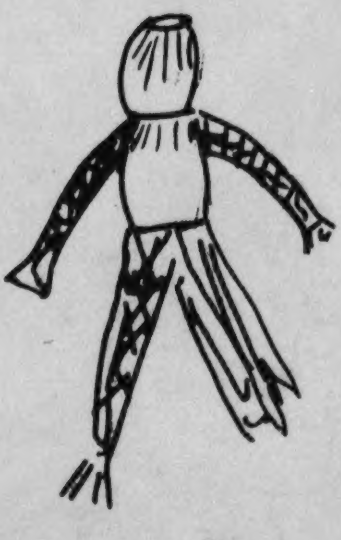


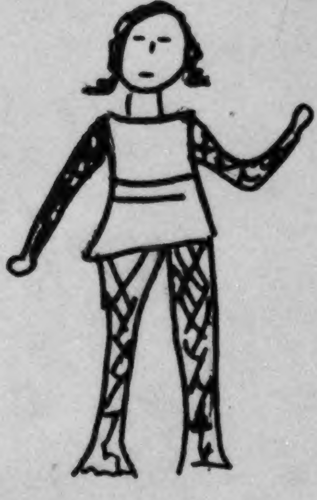




Braided Method

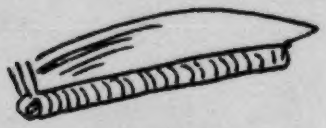


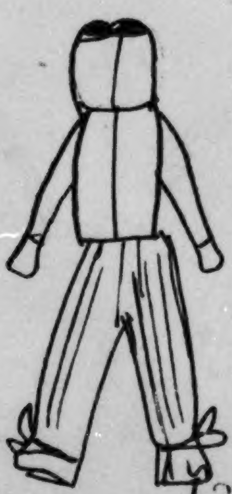


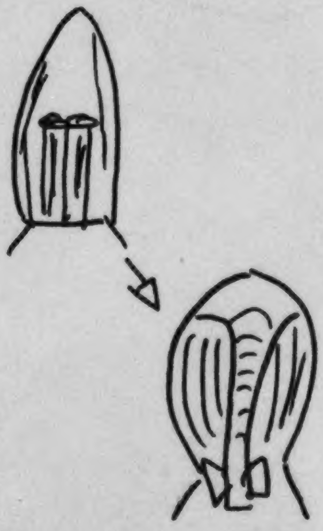


Roll Method: Another method or procedure is to roll three or four shucks tightly and tie at each end to form limbs and body. Take two rolls of the same size and tie where you think the waist would be. Also, tie about an inch from the top for the head. Wrap a portion or small leaf over the top ends, twist in the back and bring down to where the head has been tied before. For a neat appearance, cover with a small band, neatly tie in the back, and clip. Thus, a neck is formed. Skirts are formed by adding leaves to the waistline.

Also, select a corn shuck which has a protruding shank of about 1 inch long, for the neck. Arrange loose shucks with the tips toward the top; tie them as tightly as possible for the waist. The bottoms of the shucks are wide and form a solid base of full petticoat. When trimmed, the doll will stand. An acorn with a burr cap may be used for the head. Features of face are drawn in with ink. Punch a hole in the acorn and attach it to the shank with toothpick and glue. Pipe cleaners may be used for the arms. A shawl or pinafore may be draped across the arms.







The Petite Doll· You'll really love this doll for table centerpieces, as supplements to decorative pieces, or for what-not shelves. These dolls can be adjusted to standing, kneeling or sitting, and are very nicely used as accessories to decorations, as on driftwood, adorning Horn of Plenty, a basket of fruit, a flower arrangement, etc. The uses are as many as imagination and creation can attain.

As you work with these miniature dolls, ranging form 4 to 6 inches, interest and creative instincts are stimulated. There is always one more story-book character you would like to make!

This doll requires more patience, skill, and dexterity; and, therefore, is probably best suited for teenagers and older people, not for very young children.

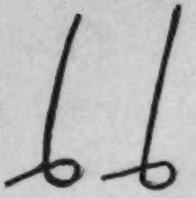
Make framework of wire. Then wrap tightly with small strips of cornshuck much the same as you would for first-aid bandages.

Take a large cornshuck leaf, split to within 2 inches of top. Place a piece of wire on either side for the legs. A loop is made for the foot with one straight piece extending from the heel, which is longer than the toe loop. This enables the doll to stand. Wind the shuck strip around these, tying ends with string or tacking same. Continue with slightly larger strips for the pants portion, coming up underneath legs and forming an X both front and back. Tie at waistline.

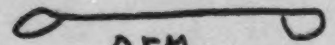
Take a piece of wire long enough for the arms. This can simply be placed under the 2-inch roll or can be circled around the body form. Wrap these.

Form the head as given in the illustration in "Roll Method." Attach this to the body by folding down the 2-inch shuck and placing inside the head. Tie the neck with string.

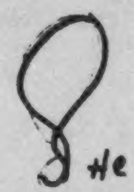
FRAMEWORK FOR PETITE DOLLS



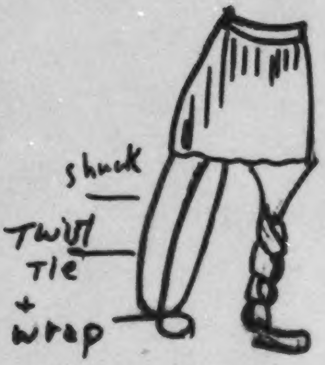
Leg wire

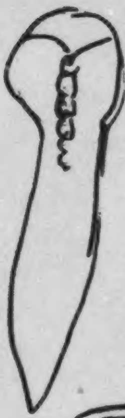


Arm wire

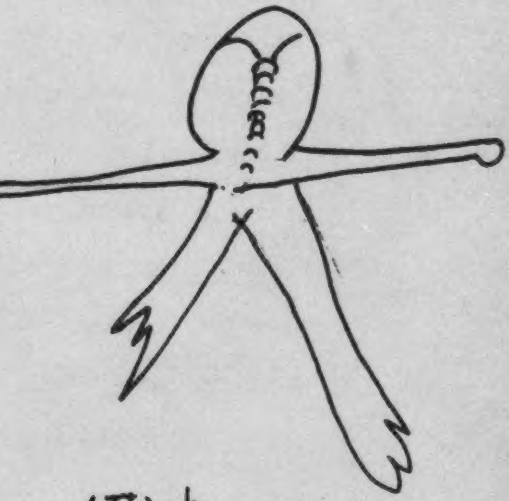


Head

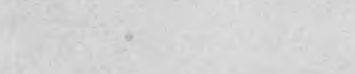

shuck
Twist
Tie
+
wrap



As in roll Method



Attach
head + legs
Together by Twisting
wire into remaining
portion –



wrap Arms
+ Legs

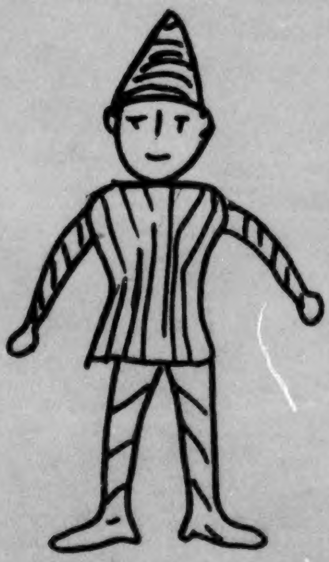
You are now ready to add the clothes.

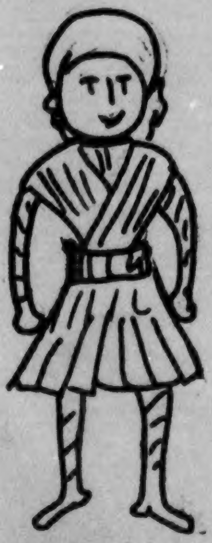
Wearing apparel may consist of trousers, shirt, aprons, jackets, etc. A very simple shirt is a folded cornshuck, cut as you would a sewing pattern with hole for neck and sleeves. This is slipped over the head and may hang loosely or be tied to the waistline.

Accessories, such as hats, shoes, umbrellas, pocketbooks, cranes for shepherds, etc., tend to make the character doll "come to life."

Just a few illustrations are given so that the joy of creating will not be taken from the child.

In costuming a doll, children may be incited to continue this field of work in later years.





12. MASKS

(From CORNSHUCK CRAFTS, p. 73-74.)

A general favorite make-believe party is that of Halloween. A mask can easily be made by attaching husks to a brown paper sack, newspaper, burlap, cardboard, or other material. Feathers and a twisted beak can be added to give the appearance of a chicken or other bird. Or, long strips of husks can be glued or stapled onto scak to give the appearance of a deer (with antlers), a dog, etc. The fun is in the making!

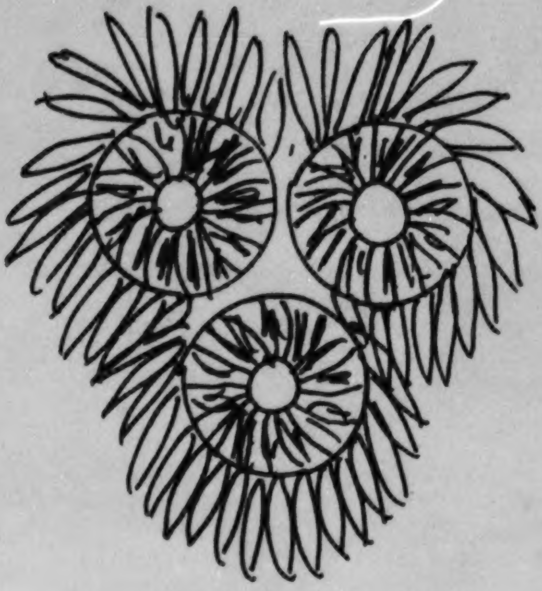
The art of make-believe may call for Mother Goose characters, cowboy-and-Indians and the like. All of these could be cornhusk creations.

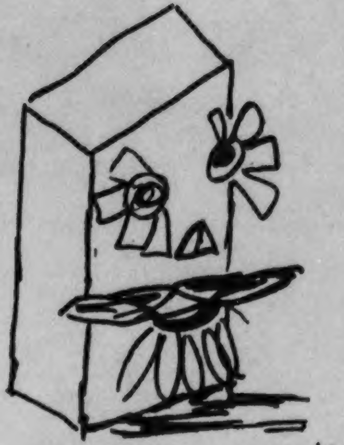
In the illustrations three 5 inch circles with holes in the center were tied together for the eyes and nose; and with feathers, etc., being attached to them to form the completed mask.

The Iroquois Indians made masks for their medicine men from braided husks, sewed together to give holes for eyes and nose. This would simply be a little more time consuming than coverage of newspapers, sacks, or Hot-Pad or Mat methods, for an impromptu mask. However, it might be an interesting item to make.

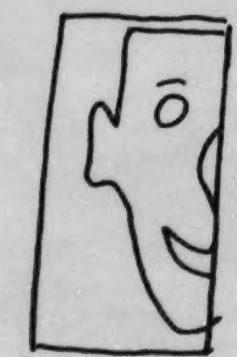
Puppets could likewise be created from corn husks.

MASKS

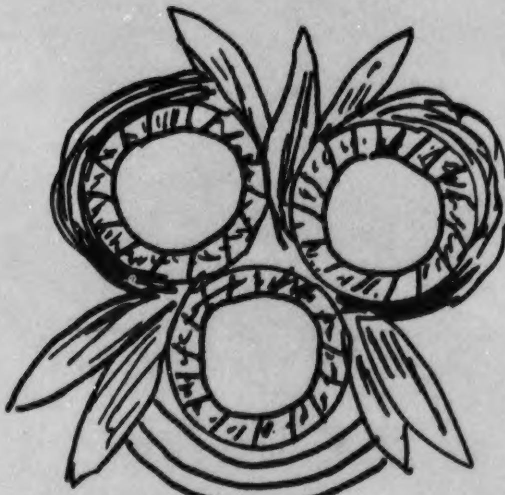




paper bag mask



Formation of a Newspaper mask



13. MOBILES

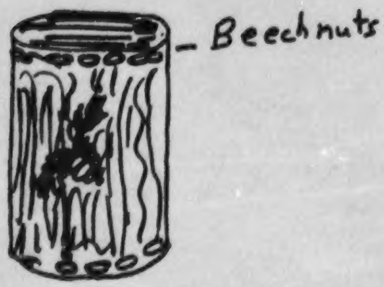
Cover wire or coat hanger with strips of corn husk. See Wrapping Method.

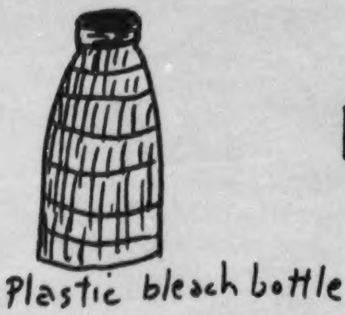
A variety of items such as those cut or made from corn husks or nature items of acorn caps, seed pods, seeds, etc., can be strung from light wire or string.

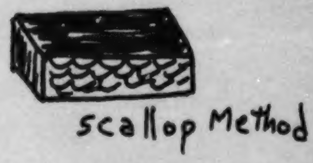
These could correspond with the name of the unit. For instance, an Indian unit could provide Indian headdress, slippers, modernistic fish, teepee, arrowhead, and the like. In this way, the craft would be an integrated one!

14. VASES

Oatmeal boxes can be covered with cornshuck leaves so that the grain or leaf would be vertical. After leaves have been glued to the box, trim all edges so that there will be an even edge. Beech nuts, colored corn, seeds, etc. make a neat trim. The center may be decorated with large items; such as, hazel nuts, acorn caps, pine cones, and sprigs from nature. Artificial flowers could be placed inside this.







Wastbaskets can be made in the same manner as vases by using ice cream cartons. Also, use the Twist Method.

Pencil holders and various other items can be made from other cartons.

The Roll and Twist Methods may be applied in gluing corn shucks to small tin cans, bottles, etc. These can be used for decorative or other purposes.

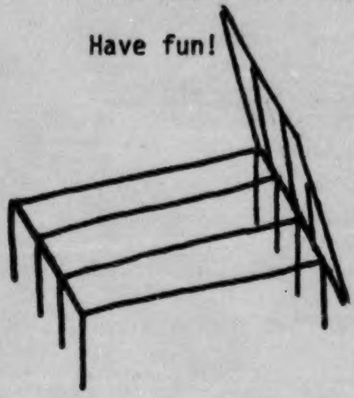
15. WEAVING BY OUTDOOR LOOM

Children may enjoy experimenting with weaving of husks. See a craft book on looms, or make a simple affair in the following way.

Drive eight sticks into the ground and connect each of the four ends with binder twine. At one end, lash a stick across the four posts. Onto this tie another strip of binder twine midway between the other strips. Tie these four lengths to a stick for the handle of the loom.

Handfuls of finely split husks could be put inside this loom. The handle is pulled down and underneath, and more husks are placed in this intersection underneath before the handle is pulled back to starting position. Thus, an over-and-under weaving of the husks will convert them into mats, etc.

Have fun!



16. OTHER USES OF CORN COB'S

Animals: By varying the length of the pieces of cob you use for head and body and by changing neck, legs and tail, you can make all kinds of animal personalities. Carve section of cob for head. Attach to body with toothpicks and add toothpick legs. Glue on paper or leatherette ears and eyes, with paper, cornsilk, match-sticks or a bit of cob for tail. Try adding a rubble around neck.

Dolls: Farm children used to add to their doll families by dressing corn cobs with doll clothes. Carve out neck about 1½" below large end of cob. Add cornsilk or yarn hair and make features of felt or paint. For hands, gather sleeves of dress around small pieces of cob or stuffed squares of tissue paper or cloth.

Puppets: Make a roll of paper to fit index finger loosely. Glue neck of corn cob head inside top of roll. Fasten doll dress or kimono style costume aroung roll. For an Indian puppet, use a brown paper bag for costume and decorate with painted Indian designs.

Indian Projects:

Kachina Doll: Carve the cobs with a pocket knife. Features and bands of color to suggest clothing can be made from paper or painted on with airpland dope.

Totem Poles: Carve the cobs to form a series of knobs. Add features of small pieces of cob, thumb tacks, toothpicks, buttons, bottle caps and so on. Decorate with paint and finish with shellac.

Slide: For an Indian head neckerchief slide or lapel pin, cut a piece of cob 1½" long. Glue braided yarn across top for hair. Glue on seeds, paper or pieces of cob for features. Glue on a headband made of a string of tiny beads of plastic lacing. Insert feather. Attach a curtain ring to back of headband. Make other characters the same way.

Party Favors:

Boats: To obtain curve of boat, place a dried cob into water for a short time. When removed and allowed to dry, it will form a curved shape. Insert toothpick masts, with paper sails. To give weight, attach screws at bottom.

Owl Candle Holder: Carve a portion of cob to make neck, feet and ears of owl. Cement a tiny plastic cap to the top of the head. Glue to circular base. Add large eyes of paper, felt or gummed rings. Use as a Halloween favor.

Pipe: Cut 1½" piece from narrow end of cob and carve out pith for bowl. Add toothpick stem. Attach to place card or name card.

(From McCALL'S "Nature Crafts" p. 21)

These corn cobs can also be sawed into round sections and used to make pictures of flowers as well as in all areas. The corn itself can be used to make necklesses and mocisans.

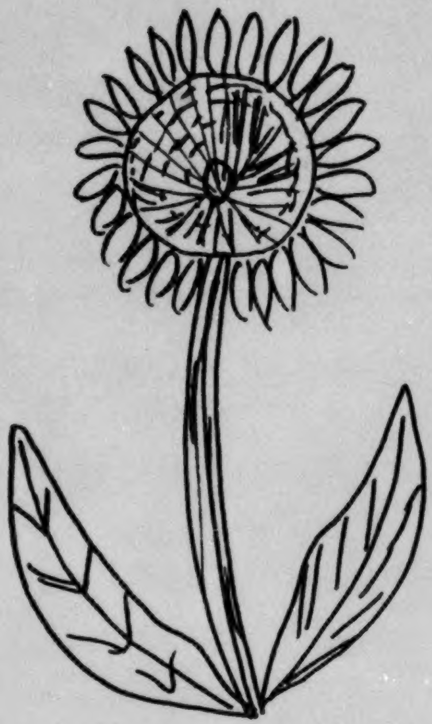
Corn-Cob Plaques:

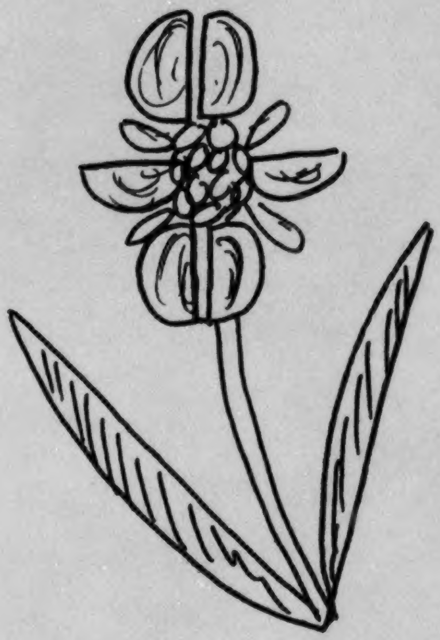
Equipment: Small handsaw. Small, flat paintbrushes. Scissors, Sharp' knife.

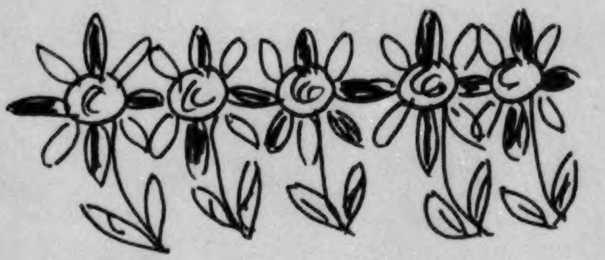
Materials: Dried corn cobs, kernels, and husks. Scrap lumber ½" thick, about 8" wide. Red food coloring. Shellac. All-purpose glue. Screw-in rings for hanging.

Directions: With saw, cut wood for each plaque 8" X 10". Leave edges and sides rough; cut nicks into edges for more rustic look if desired. Dilute food coloring with water. With flat brush, color one side (front) and edges. When dry, coat front and edges with shellac.

With saw, cut corn cobs in slices crosswise to make circles. Cut some circles into quarter wedges. Referring to illustration, arrange design on wood plaques as shown or as desired, using cob slices and yellow, red, and black kernels to accent or as part of basic design. Cut leaf and stem shapes of husks and arrange in place. Use corn cob slices in half lengthwise for long, thick leaves shown on one plaque. Glue all pieces on plaques. With paintbrush and diluted coloring, touch up cob edges and husks as desired. Screw rings for hanging in top of plaques.







Section II

APPLEHEAD DOLLS

(From PACK-O-FUN, Oct. 1958, p. 25-26.)

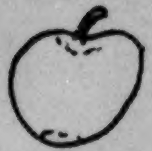
Character heads, carved from apples and allowed to dry, have an extraordinarily lifelike quality, suggesting the wrinkled, but charming faces of rustic personalities. Boys will enjoy the carving and can make a venerable pirate or Rip Van Winkle by attaching the head to a long-necked bottle. Little girls may prefer to fashion dolls with wire bodies and dress them in scrap fabric to create a quaint pioneer couple.

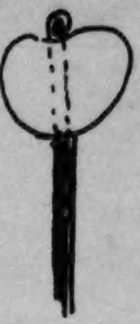
Select firm, green or Russet apples and be sure they have no soft spots or discoloration.

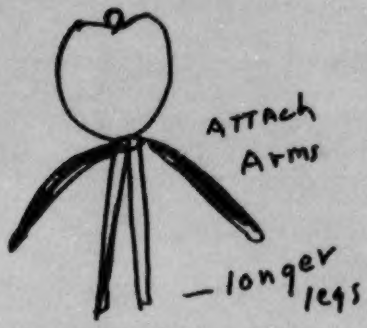
Head and Figure: Peel apple carefully. Try to avoid making ridges, for every one will show when the fruit has dried. Remove stem and blossom ends.

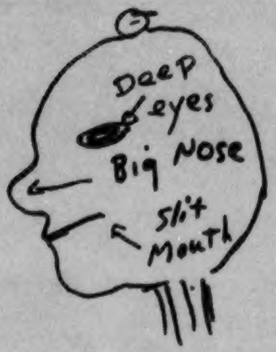
Bend a 24" piece of coat hanger wire in half. Push both ends down through the stem end of the apple, bringing wires out at the bottom to form body and legs. The loop will fit into the stem depression and hold the apple securely. With spool wire, fasten a 10" length of firm wire to the body for arms.

Carving: Apples shrink considerably while drying, so features should be exaggerated. Carve a well-rounded forehead, deep holes for eyes and a large nose. Cut a small, deep slit for mouth. Add a few extra slashes to the forehead for character lines. Submerge apple in lemon juice for about 5 minutes to bleach skin color. Hang up in a dry place for at least three weeks, or over a radiator or warm stove for several days.









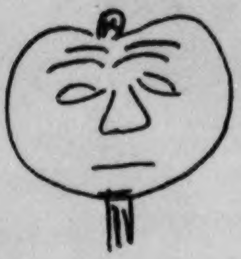
Features and Hair: For eyes, push small, round-headed nails, pepper seed or pearl tapioca into openings for eyes. Every other day, while the fruit is drying, push eyes a little farther into face. The apple will shrink around the eyes to resemble eyelids.

When the apple is dry, place grains of rice, cake decorations or miniature false teeth into the mouth. Before painting features with tempera color, pinch fruit lightly to determine whether it is dry. It should be entirely without moisture. Dab cake coloring or dry rouge on cheeks.

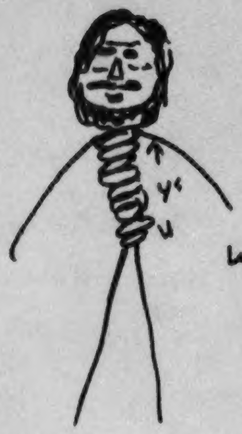
For hair, glue yarn, fur, cotton batting or embroidery floss to head (and around face if the doll is to have whiskers). Trim to desired length after glue is dry.

Body: Wrap strips of crepe paper or material around upper 4" of body wire, then separate legs and wrap them one at a time. Pad body and legs with additional strips if you wish a sturdier look. Bend arms and legs into position.

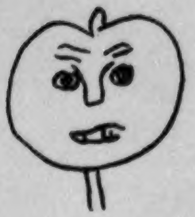
Hands: Wrap with extra strips at arm ends. Glue or stitch the finger of a child's glove over end of each arm and paint lines for fingers. Hands can also be modeled in clay, whittled from wood, or made from paper mache or felt.



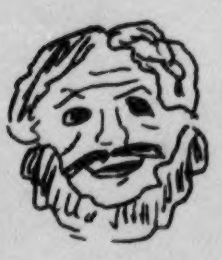
Add forehead slashes



wrap body

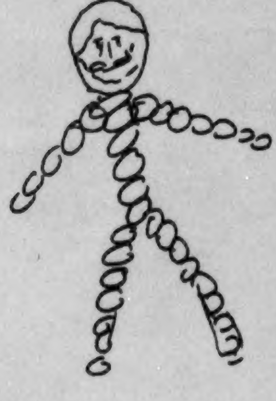


Push Nails in for eyes.

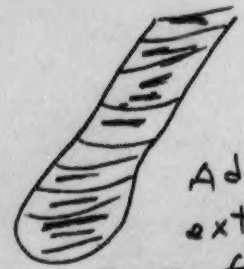


glue on Beard + Hair

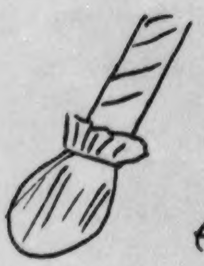
Paint features



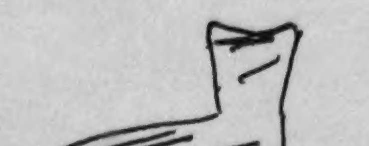
Dress as desired



Add extra strips for hand



stitch glove finger over hand



feet from clay, soap plaster or paper mache.

(From McCALL'S "The Best Of Needlework and Crafts", Vol.1, p.66)

Equipment: Paring knife. Scissors. Paper for pattern. Pencil. Ruler. Needle.

Materials: Medium size, hard, late fall apple, such as Winesap or Baldwin. Absorbent cotton. Two black seed beads. Two artificial seed pearls. Plastic liquid detergent bottle about 7" tall. Air-hardening clay. Two pipe cleaners 12" long. Green satin fabric ¼ yard, 36" wide. Fancy green and gold braid 3/4" wide, about ½ yard. Bits of white lace. Piece of lace from white petticoat. Tiny artificial flowers. Tiny green jewels. Scrap of magenta ribbon. Green sewing thread. Masking tape. Narrow wooden dowel. Gold paint.

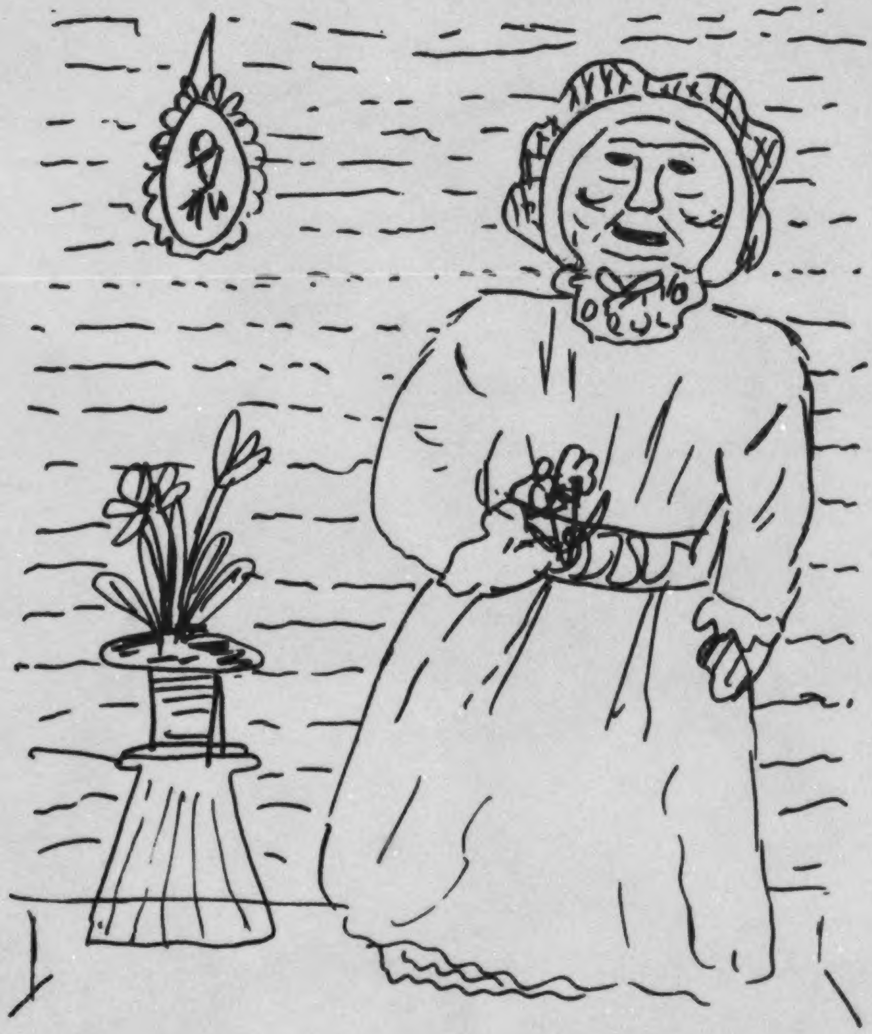
For Shadow Box: Wooden picture frame 7 3/4" X 9½" rabbet size. CArdboard box 8" X 9 3/4", 2¼" deep. Brown paper. Scraps of wrapping paper, magenta color, with tiny repeat pattern. Narrow gold paper edging. Small color illustration. Green velvet 2¼" X 8". Scrap of gold thread. Short glass jar (such as old perfume bottle). Toy plastic grandfather's clock 6" tall. Plastic pill bottle 3" tall. Artificial plastic plant. All-purpose glue.

Directions: Grandma: For head, make a few apple heads, so you can choose the best (each apple dries differently, even though cut the same). Peel apple carefully. Decide which end of apple is best for bottom of head, then cut out core at bottom and insert a sharpened dowel stick into bottom. Smooth apple with knife, taper narrower at bottom. Cut features deeply into apple, cutting triangle shapes for eyes with slits above that will form lids. Carve out some of apple at sides of nose! Shave at sides for cheeks and but small grooves under cheeks. Taper bottom at front for chin, cut out small amount under chin. Cut curved grooves at sides for ears; cut bits of apple away under and in back of ears. Scrape apple smooth. For wrinkles, score with thumbnail across forehead, cheeks, and chin. As apple dries, rescore if necessary.

Set apple on dowel stick in a jar and place on radiator or stove to dry for about three weeks. When the apple is really dry, it will keep for two or three years. Glue black seed beads in center of eyes. Glue cotton on head for hair. Glue seed pearls to ears for earrings. For body, insert dowel into plastic bottle; glue and tape head to neck of bottle. For arms, twist two pipe cleaners together. Glue and tape center portion across back "shoulder" of bottle, bend arms at each side to curve downward. For hands, shape small wads of clay and insert ends of arm pipe cleaners into clay; let dry.

Enlarge pattern for dress top by copying on paper ruled in 1" squares. Complete half-pattern indicated by dash line. Cut dress top from green satin. Fold in half across arms and slash down center back. Sew each side and arm seam. Cut skirt 5¼" X 23" of green satin. Sew 5¼" ends together and gather one long edge for waist. Sew gathered waist to bottom of dress top. Put dress on doll. Hem bottom edge of skirt a little longer than bottom edge of bottle. Taper and hem sleeves at wrists. Trim dress with lace around sleeves and at front of dress. Glue tiny jewels and magenta bow to lace on front. Sew braid around waist. Sew back opening closed. Glue lace from petticoat around bottle under dress so that lace shows at bottom. For cap, make a ruffle of lace and fit around top and sides of head; glue to hair. Glue flower to hat. Glue bouquet in her hand.

Shadow box: Cover sides and back of inside of box with paper; glue smoothly. Cover bottom with green velvet; glue. Glue pill bottle and clock on top securely to back as shown. Glue gold paper edging around color illustration; glue to back as shown, with gold thread above as if picture were hanging from it. Glue jar (with neck painted gold) in corner as shown, with plant secured at top of it. Tape and glue box securely to back of picture frame. Glue brown paper around outside edges of box. Glue gold paper edging along inner edges of frame as shown. Glue Grandma in place.



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Section III

CLOTHESPIN DOLLS:

(From CREATIVE CRAFTS, August 1974, p.33)

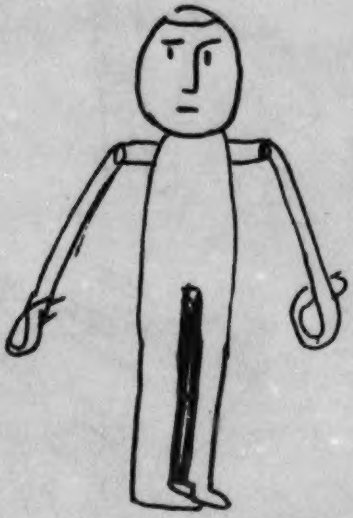
Add plastic wood to head and form features. Draw eyes and mouth with magic markers.

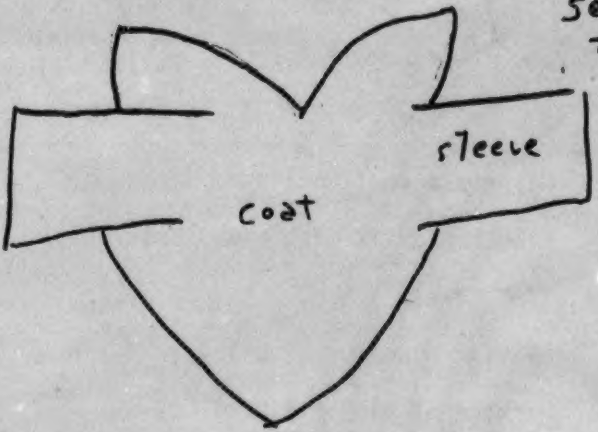
Drill a 5/32" hole through the shoulders. Insert a pipe cleaner for arms and a 1/8" dowel for shoulders. Glue them in.

Do not form the hands until doll is dressed. Hands will not pass through coat sleeves.

Sandpaper the ankles to make them slimmer.

Add splinters for feet and build them up with plastic wood so the doll can stand alone. Sandpaper them when dry, and paint the gaiters white, with black toes and heels. Acrylic paint is fine for this.





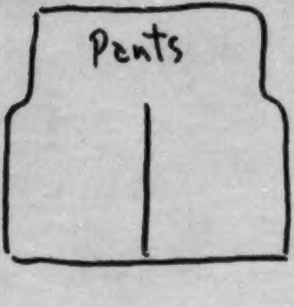
Sew sleeves together with overcast stitch

Put the coat on the doll and glue front flaps down.

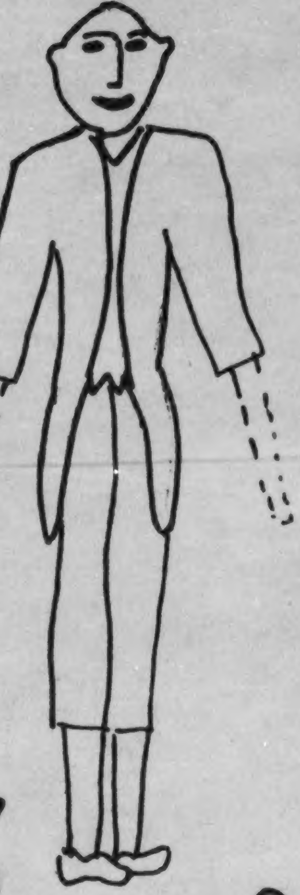
Cut 7¼" of red soutache braid and glue it onto the coat edge, starting and ending at the back of the neck.

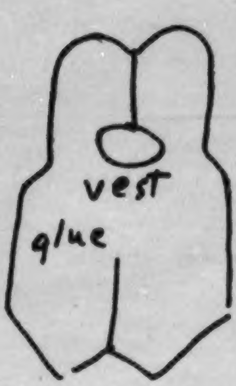
Cut two more short pieces and edge the sleeve cuffs. Form the hands.

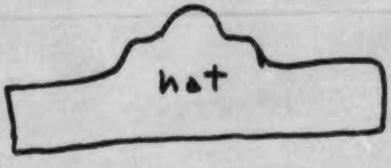
Cut a white strip of felt 7¼" long and ¼" wide. Starting at the back waist, come up over the shoulder, diagonally across the front, around the back waist, diagonally across the front again and return to the starting point. Glue this in place.

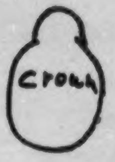


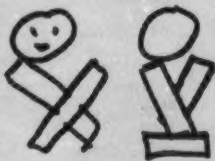
glue on
Pants
back first
Punch the
side seams
into The slot











Materials and Supplies:

Electric drill with 5/32" drill bit

1/8" dowel

Plastic wood for modeling head, shoulders, and feet

Package of pipe cleaners

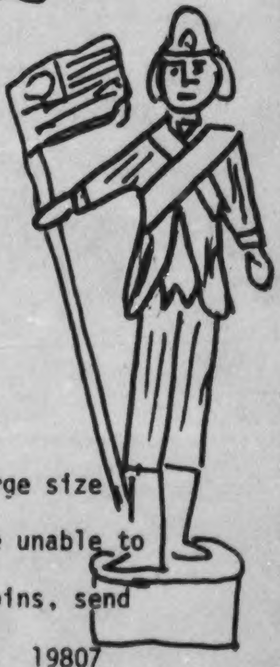
Felt: blue, buff, and white

Narrow red braid and gold metallic braid for trim.

Surgical cotton

Acrylic paints: black and white

Clothespins: The patterns given were designed for extra large size peg pins. The author will sell these pins direct if you are unable to find them in your local grocery or hardware store. For 30 pins, send $1.00 to Harriet Shealy, Walnut Ridge Rd., Wilmington, Dela. 19807



Section IV

DROP SPINDLE SPINNING:

Hand spinning is one of the most ancient of crafts; man discovered early that certain fibers, wool especially, could be spun into a strong thread to be woven or somehow knitted into a warm fabric. Drop spindle spinning--a way of spinning by means of a weighted spindle or whorl--is one of the most primitive of spinning methods, but is nonetheless still being practices in many parts of the world today. Bolivian women spin as they go along the rugged paths to the Andes, turning llama and alpaca wool into yarn for the heavy ponchos which they wear. Navajo squaws use a modification of drop spindle spinning when creating the colorful yarns for their famous rugs and blankets.

Handcrafters today are interested in this simple method of spinning because it is a means of making homespun yarns without expensive equipment. In fact, the spindle can be made from objects found around the house, and is as plain or fancy as you wish to make it--an elaborately turned wooden whorl with a polished shaft, or an apple with a pencil stuck through it. Basically, the spindle consists of dowel like shaft fitted snugly into a flat topped round whorl, such as a drawer pull, or a cross section of a dry tree limb. Either the shaft goes completely through the whorl, protruding a bit underneath, or a knob of some sort is attached on the whorl's underside. A notch is cut about one inch from the top of the shaft. With this simple tool, and a little practice, you will be able to create your own handspun yarn.

Although yarn may be spun from a variety of fibers, ranging from the long flat strands of flax to thick goat and dog hairs, wool is the easiest for the beginner to use. In fact, wool twists and clings so readily that it makes spinning a very pleasant task. Many spinners prefer to spin wool in the grease (unwashed), preserving as much of the natural lanolin as possible. Wool in the grease can be very easy to work with, since the oils cause it to slip smoothly through the fingers (washed wool is often rubbed with olive oil to restore this quality). The only absolutely necessary preparation for spinning wool in the grease is teasing--gently plucking and fluffing clumps of wool from the fleece with the fingers--to remove most of the burrs and bits of leaves which are invariably stuck in the fleece. As the wool is teased, it is pulled into a loose rope or tube, and may be spun from this tube. Most spinners prefer to card the teased wool, however; this combs and straightens the fibers, producing a smoother yarn.

If you prefer to was your fleece before spinning, keep one very important thing in mind--wool must not be subjected to extremes in temperature during the washing and rinsing process. Soak it for several hours in a basin of warm water to which a mild detergent has been added. Do not twist or squeeze the wool, but at the end of the soaking time, lift it form the basin and leave it in a colander to drain. Several washings may be required, and then, several rinses, before the wool appears clean. Between those washes and rinses, drain it in the colander and take care never to plunge the wool into water which is hotter then that which it came from. After the last rinse, let the wool drain almost completely dry, then tease the fibers to fluff it up. Then, either pull it into a long tube for immediate spinning, or card it.

Carding, or combing, the wool requires a pair of carders--flat wooden paddles, each having one surface covered with rows of tiny metal hooks. A tuft of teased wool is placed on one carder, which is held in the left hand, handle up, resting against the left leg.

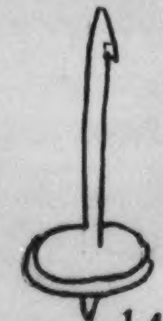
(Instructions are given for right-handed people; left-handers should substitue "left" for "right" and vice versa.) The second carder is held in the right hand, face down with handle toward you, and is drawn very lightly in a downward motion across the first carder. Note that the carding motion begins with the "bottom" edges of the two carders meeting. Repeat this motion several times, drawing firmly, but without pushing the top carder into the bottom one. You will see the fibers beginning to straighten and lengthen. Now, invert the right hand carder, holding it handle up, facing the left hand carder. Gently scrape wool onto the right hand carder with short downward strokes. The whole carding process is then repeated two or three more times, until wool is thoroughly combed. It is then shaped into a soft little sausage on the backs of the carders. This is called a rolag, and it is from this that wool is spun.

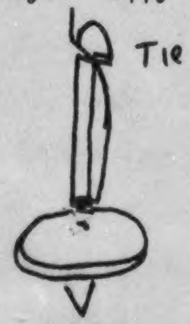
Now to prepare your spindle for spinning: attach aneighteen inch length of any yarn (this is just to get things started) to the base of the shaft, just where it enters the whorl, winding the yarn around a few times. The yarn is then passed around the knob at the underside of the whorl and up to the top of the shaft where it is attached to the notch by a half hitch knot. A length of three or four inches should extend, and this is where you start to spin. With the left fingers,pinch together the end of the yarn and the end of a rolag; with the right hand, spin the spindle in a clockwise direction. The twist should run up the starter yarn and enter the rolag, stopping at your left fingers. It may require a couple of tries before you can get the yarn to latch onto the rolag, but it will twist together eventually. Also, take care not to get the other end of the rolag twisted up in the yarn as you go along. As the twist enters the rolag, gently "feed" it some wool by pulling down on the wool with the right fingers, sliding it through the left fingers. Don't try to do the spinning with your fingers--the spindle will do it for you as you give it a fresh clockwise spin with your right hand from time to time. As you come to the end of a rolag, pinch the beginning of a second one to the end of the first, and it will be twisted into a continuous yarn. Naturally, your first efforts will not be smooth, but you will probably be quite happy with your efforts in a surprisingly short time.

When you have spun a good length of yarn, wind the yarn around the spindle shaft: holding the end of the yarn taut, undo the half hitch, unwind the yarn fromthe knob, and wind the yarn around the shaft. Leave about fourteen inches free,for the yarn must once more be wound around the knob and up to the notch as before. Then continue spinning and winding yarn onto the shaft until the spindle begins to feel clumsy from having too much yarn would around it. At that time, remove the yarn, and wind it into skeins on the back of a chair, or between two pegs.

Many different types of yarn can be created by plying the yarns, that is, spinning two lengths of yarn together. An interesting effect can be had by plying a yarn spun clockwise withone spun counterclockwise. Different spindles will also produce different yarns.

Your beautiful handspun yarn may be lightly washed, if it was spun in the grease, and is then ready for whatever purpose you had in mind--knitting, crocheting, or weaving, with "au naturelle" or perhaps tinted with a mellow natural vegetable dye. Happy spinning!





Section V

DYEING WITH NATURAL MATERIAL

(From CREATIVE CRAFTS, August 1975, p.44-46.)

You may get a sudden urge to do some natural dyeing for your knitting, needlepoint of weaving, but the grey drizzle outside discourages plant collecting. Or you live in an apartment and the nearest plants are inaccessible to you or you just haven't the time for a field trip. Snow, rain, city dwelling or location need not deter you. Just go to your nearest supermarket and the produce there will give you a rainbow of colors.

Here you pay for most of your dye supplies but the cost is minimal when you consider the gas and the time you save. However, a few of the dye materials are free if you consult the store manager. He is usually happy to have you clean his onion bins of the surplus skins or collect the cabbage leaves, carrot or beet tops from the back room. He might even save them for you if you tell him about your dye project.

Many of the vegetables that make good dye can be served at the table and the cooking water used as the dye bath. Spinach (slightly overcooked) can become a fancy puree at the table and a lovely green dye for the wool. Purple cabbage is edible after being cooked one hour and the broth left for the dye. From the cabbage you get several shades of green, depending on the size and the quantity of cabbage used. Oranges are a real boon. Use the orange juice or the pulp then boil the peel for one hour and dye your yarn a bright orange. This is a good way to recycle that peel that would normally be thrown out. It smells delicious while cooking too. The water you boil the beeks or the beet tops in will dye your wool pink or a yellow green. Beets are fugitive and the color will fade some, but the yarn is still usable and attractive. Consider the antique quilts and tapestries that have faded. Their soft coloring has added to their charm. Cranberries make a lovely rose to lavender color and the berries can still be used, with sugar added, for a preserve or a sauce. Any of the nut hulls make good dye after the nut meats are put into the fruit cake or cookies.

Now turn to the frozen food section of the market. Here you can purchase blackberries, huckleberries, blueberries, raspberries or strawberries and they all produce good strong colors. The raspberries made the brightest purple I have found in any of the natural dyes. It takes at least two 10 ounce packages to dye ½ pound of yarn. You might experiment with rhubarb (I have not tried it yet.) Frozen grape juice is easy to use and gives a lively purple. The bottled grape juice makes a slightly darker shade of purple.

The spice shelf is a gold mine for your dye pot. Turmeric, saffron, ginger, paprika, curry powder, mustard and cinnamon each give vivid colors from yellows to reds. Try chopped chives, oregano and other spices you see, for experimenting is half the fun.

If you want really quick dyes, try instant coffee or tea. They give varying shades of tans and browns. Rose Hips tea produces a delightful rosy tan. Coffee grounds placed in a cheesecloth bag and boiled with the wool make a rich chocolate brown. Chewing tobacco, pipe tobacco and snuff also give dark browns. A package of hickory chips (from the barbecue section) pre-soaked overnight will dye ½ pound of yarn the same rich brown that walnuts or hickory nuts do, and the chips are considerably cheaper. Sunflower seeds (bird feed) make the attraction yellow-green. After boiling the seeds spread them outside on a lawn table and the birds will flock to them. Perhaps boiling gives the seeds a better flavor.

The canned goods shelf holds other dyeing possibilities. Canned spinach, beets or okra (includeing the liquid packed in the can) give excellent colors when simmered ½ hour, the vegatable strained out (and used on the table). The remaining liquid is the dye bath. Drop your thoroughly wet wool into the pot and presto--you have colors. Cherries for pie make a soft rose color and need but ½ hour of cooking. A box of currants, soaked overnight then simmered will give a pearl grey or lavender color.

Should you get a color you don't like or is too pale just overdye it in another dye bath. I tried potato peel and apple p-el and was disappointed in the insipid color so I put the skeins in the instant coffee bath and got a most unusal rose-brown.

If you plan to use your dyed material in an article that is to be washed often I recommend that you use mordants in your dyeing. A mordant is a mineral salt that binds the color to the wool, makes it more sunfast and washfast, can change color tones or brighten the color. Home dyers often use vinegar or salt or lemon juice in the last ½ hour of the dyeing process to make the color more lasting but these will not make the color permanent. Dyer's mordants are purchased at a prescription drug store, a chemical supply house, or sometimes at a health store.

To use mordants you mix the prescribed amount of the mordant crystals in a jar with about a cup of water, shake well to dissolve the mordant, then add to the dye bath in solution.

The mordants easiest to find and the most often used by dyers are:
Alum: (potassium aluminum) which does not change the color of the dye but binds the color to the wool. It is used with Cream of Tartar (spice counter) and the quantity for ½ pound of yarn is Alum 2 teaspoons and Cream of Tartar 1 teaspoon.
Chrome: (potassium bichromate) brings out greens and yellows. The dye pot must be covered, for Chrome is light sensitive and weakens with light exposure. Use 1 teaspoon of Chrome and 1 teaspoon of Cream

of Tartar for ½ pound of yarn.

Copper Sulfate: (blue vitrol) will make a green dye greener. Use 1 teaspoon to ½ pound of wool.

Iron: (ferrous sulfate or rust) "saddens" or darkens colors. A handful of rusty nails put in a cheesecloth bag and boiled with the wool will do the same thing but the nails are sometimes difficult to find.

Tin: (stannous chloride) brightens colors. Tin may be added to an Alum bath during the last half of the cooking process to pick up bright color. Tin must be rinsed in soapsuds after the dyeing for Tin hardens wool.

It is interesting to dye two skeins of yarn in one dye bath, mordanted with Alum. Remove the skeins after the desired color is reached. Add ½ teaspoon of Iron to the dye bath and stir. Return only one of the skeins to this bath and let cook about ½ hour. Remove and rinse. You will have two tones of the same color which blend perfectly, one bright and one "saddened."

Sometimes an ammonia (plain household ammonia, not the sudsy kind) rinse changes the color to an interesting, unique shade. I had a soft, lovely rose from cranberries. I put one skein of wool into an ammonia rinse and got a bright chartreuse. There is always a surprise when dyeing.

Your vegetable colors will be truer if you do all of your dyeing in enamel kettles. Tin, aluminum or iron pots change the colors. Do not use mordants in pots that you are using for cooking, for some of the mordants are poisonous. Keep a separate kettle as a dye pot and keep mordants out of the reach of children.

Most of the vegetable dyes do very well without mordants, but the colors will not be as permanent and sometimes not as bright. If mordanting seems too difficult just add ½ cup of white vinegar or lemon juice or 1 tablespoon of salt to the dye bath. Then wast the dyed cloth or skein by hand instead of in the washing machine.

Here are the steps for dyeing ½ pound of material.

1. If using thread, make a skein of it and tie loosely in two pieces.

2. Soak the skeins or cloth in water at least one hour before dyeing to keep the wool from streaking or splotching in the dye bath. If the wool is thoroughly wet the dye will absorb evenly.

3a. Put the dye bath (broth form the cabbage, beets or Turmeric) into an enamel kettle. Add water to make 3 quarts. Add yarn (or cloth) and simmer 1 hour or until desired color is achieved. Keep the wool submerged by poling with a dowel or spoon, for wool is light and floats to the top. Do not stir around and around because the wool will tangle.

3b. If mordanting, dissolve the mordants in a jar with a cup or so of water. Shake and dissolve the mordant. Pour solution into the dye bath and stir before entering the skeins.

4. Remove the skein form the dye bath when it is the desired color. Pinch a piece of wool with your finger to get the color when dry, for wet wool always looks darker. Rinse the yarn in hot water, about the temperature of the dye bath (a drastic change of temperature will mat or shrink wool). Rinse until the water is clear then hang in a shady place to dry. Remember that Tin must be rinsed in soapsuds then the soap rinced out. Each rinse bath can be cooler than the one before. Gently squeeze the water out of the skeins. Do not wring. Sometimes I dip the skeins in a commercial fabric softener (household counter) at the end of the rinsing so the wool will be fluffy and soft.

5. Knit, crochet, needlepoint or weave with the colors that you, nature and the supermarket have created.

It is fun to make variegated skeins of color. Place a stick across the dye pot and hang ⅓ the length of a skein in a grape juice bath. Cook, remove then rinse. Hang the other end of the same skein over the stick into a cranberry bath. Simmer again, remove and rinse. You will have a lovely rose-lavender skein of wool for the colors often blend in the center. Other combinations can be dyed this way. Try instant coffee and purple cabbage, saffron and beets. The color possibilities are endless. Experiment and get the colors you like for your needlework. There is a special joy in creating with natural dyes, for the colors are completely individual. They are yours.

(From THE DYE-POT, By Mary Frances Davidson, p. 5-21.)

Large quantities of dyestuffs are required for one pound of wool.

Barks--one peck finely chopped.

Leaves--three-fourths peck, dried.

Hulls--one peck.

Flowers--one and one-half quarts, dried flower heads; one and one half fresh flower heads.

Beech (Fagus sylvatica)

The leaves give a light caramel with alum mordant. The bark will give a dove color with copperas. Rinse in cold water or lye water for another shade.

Blackberry (Rubus fructicosus)

The fruit of the blackberry with alum and salt will produce a blue-gray, but the color is not fast. The green shoots of the young plants will produce an almost black with an iron mordant.

Cedar (Juniperus virginiana)

The root of the common red cedar yields a purple dye.

Chestnut, Horse (Aesculus Hippocastanum)

The husks and leaves of the horse chestnut possess dyeing qualities. With chrome, a beautiful gold is obtained. Alum does not give a color deeper than a cream.

Dandelion (Taraxacum officinale)

Dandelion roots were used by the Scotch to obtain a magenta dye for their tartans. As the roots do not keep, they must be used fresh. Two pounds of roots with an alum mordant gives a red-violet.

Dandelion roots in this country give shades of light yellow in general with good color fastness. Copperas produces a shade of dark kakhi, chrome gives a creamish green tint, alum is so pale as to be almost colorless.

Elderberry (Sambucus nigra)

The berries and leaves of the elderberry contain dye stuff. The berries give a varying color depending on the amount used and the time of boiling; a long simmering deepens the color. The berries are difficult to use. To obtain an even color, wet the wool, enter quickly and stir continually. Careful mordanting is a prerequisite.

To one peck of fruit, bruised and boiled thirty minutes, add one tablespoon of salt. Strain out the fruit before dyeing.

The depth of color may be varied by the amount of fruit used as well as the boiling time. Alum mordant produces a lilac-blue and chrome a violet purple. The colors obtained are as good as those from logwood.

Two gallons of leaves shredded and bruised give shades of yellow with both alum and chrome mordants. An old recipe says "elderberries stewed with copperas, vinegar, and alum make an excellent ink."

Goldenrod (Solidago canadensis)

The flower heads of the goldenrod, most varieties of which are so common in the mountains, are an excellent source of dye.

The leaves and flowers of the English species are used for making a yellow dye said to be as good as woad. They dye best as they are coming into bloom and used fresh. The heads are chopped and brought to a boil in cold water. They are allowed to simmer for two or three hours and the dye pot cooled and strained. The next day the pot is again heated and the wet, mordanted wool entered and simmered until the desired color is obtained.

With a chrome mordant and a peck of flower heads, a brass color is obtained. Alum does not produce a fast color unless set with an afterbath of chrome and vinegar. This canges the color to a yellowish brown.

Hickory

The inner bark of the hickory tree has long been the source of a good yellow dye. One-half bushel of bark boiled two hours and strained forms the dye-bath. Grandmother added alum to the dyepot, mordanting and dyeing in a one-bath method. The wool is boiled until the bath is exhausted or removed sooner if the desired color is obtained. Cream of tartar added to the dye-bath brightens all colors.

Alum produces greenish yellow, chrome dark yellow and tin a bright yellow. An afterbath of copper sulphate and vinegar or chrome and vinegar will darken all colors and add totheir permanency.

Joe-Pye Weed, Trumpet Weed (Eupatorium purpureum)

The tall graceful week whose name is derived from that of a New England Indian doctor has in its flower heads a yellow dye with either alum or chrome mordant, the chrome giving a deeper shade than the alum. The same procedure may be used in dyeing as for the goldenrod.

Maple (Acer)

The maple native to the mountains of the eastern part of the United States produces a pink-tan with alum and an after-bath of chrome and vinegar or with chrome mordant. A light brown is obtained from an alum mordant and an after-bath of blue vitriol and vinegar. Grandmother got a purple form the rotted maple wood with two ounces of copperas added to the hot dye-pot.

Marigolds (Tagetes)

The common garden variety marigold, fresh or dried, produces varying shades of beautiful yellow and orange depending on the amount used and the mordants employed. The fastness to light and washing is good with careful mordanting. This is a good fast yellow for greens and while poor mordanting may not show in the yellows, it will do so when dipped into the indigo bath.

Alum mordant gives the loveliest shades of yellow, chrome orange. The lighter colors are more fugitive than the darker ones. Boil the wool longer to deepen the color. The flower heads alone or the whole stalk may be used. The dye stuff in the marigold is the same as that in the black oak but the color is much clearer. Any amount of flower heads may be used from a quart to one-half bushel, depending upon the death of color desired. Cook the flower heads fifteen minutes, remove or leave in bath and enter wet wool. Boil to desired shade.

Mullein (Verbascum Thapsus)

Mullein is a large plant that may well bear the name "flannel plant" from the velvety covering of the leaves. In these leaves is a medicine soothing to irritated throats and a yellow dye. Nowhere in the plant kingdom is ther a prettier shade than that secured from mullein tea. The alum mordant affords a lovely bright greenish yellow that calls to mind the sunshine; the chrome shades are richer and darker.

Oak, Red (Quercus sinuosa)

The bark and roots of the red oak dye a fine shade of chocolate brown with ferrous sulphate. Alum produces shades of yellow which will turn to a red yellow by the addition of copper sulphate. The color fastness is very good to light and washing.

Oak, White (Quercus alba)

Shades similar to the chestnut oak are produced from the white oak by the same process. The color fastness is good.

Osage-Orange (Toxylon pomiferum)

The Osage-Orange is planted as a wind break. Indians dyed with the wood. The chipped wood is used, or the extract may be purchased from a dye house in liquid, solid, or granular form. One-half ounce of extract with a chrome mordant gives a gold color. With an alum mordant, a lovely soft yellow is obtained. This color may be saddened and changed to a gold by an after-bath of chrome and acetic acid. A good yellow to green results.

Pokeberry (Phytolacca decandra)

Pokeberries give a lovely shade of red similar tothat obtained from cochineal if mordanted with vinegar. The wool may be mordanted in water containing one-half gallon strong vinegar and dyed in the pokeberry juice then returned to the vinegar bath, or the vinegar may be added tothe pokeberry bathand the dyeing done in one bath method. If there are not enough pokeberroes used, a salmon-orange is obtained. The dye-bath must be stirred continually to obtain an evne dye.

There is no dye in the stalk or bark.

Queen Anne's Lace, Wild Carrot (Daucus Carota)

The yellows obtained from the whole stalk of the wild carrot or Queen Anne's Lace with an alum mordant are a light delicate yellow and light brass from chrome.

Both are very beautiful--unusually so.

Sassafras (Sassafras)

The bark of the sassafras root gives to wool one of the prettiest of the brown colors having a decided pink cast to it. The color fastness of the rose shades is not as permanent as that of the darker browns. The bark of the root may be obtained from a drug house. In the spring the root itself may be used for dyeing but the dye content is not as great as in the bark of the root. The depth of the shade obtained depends upon the amount of bark used. Eight ounces of dry bark will give a rich shade, more deepens the color. A chrome mordant gives the pink shades of brown and the alum mordant the browns. The alum mordanted wool should have the color set by an after-bath of chrome and acetic acid. The addition of copperas to the dye-bath gives a grey color.

Sumac (Rhus Glabra)

Sumac as found in Europe was much used to dye cotton. A poorer grade native to this country will give almost any shade of tan through brown to grey depending on the length of time in the pot, the amount used, and the mordant.

To obtain a very pretty grey soak one-half peck ripe berries one hour, boil forty-five minutes, strain and add cold water to make four gallons. Warn the dye pot and immerse the wet wool. Keep the pot at the boil for thirty minutes, remove yarn, add one teaspoon copperas and work again for fifteen minutes. Vinegar and rusted iron will serve in the place of copperas. The colors obtained from sumac are very fast to washing and light. Black from sumac is obtained by boiling eight ounces of sumac leaves, twigs, and berries for one hour for the dye bath. Have prepared one-half pound of iron filings or rusted nails which have been covered with water for several days. Strain off the water, put wet wool into the iron liquor being careful to wet the wool evenly to prevent uneven dyeing. Stir and remove wool. Hang wool up to oxidize. As it begins to oxidize, turn a rust color, put the wool into the warm sumac bath over night. The wool should be a good bright black. If it is not dyed evenly, return to the iron liquid for ten minutes then in the sumac for several hours. Rinse thoroughly in warm water.

The following colors may be obtianed from these mordants.

Copperas--Green-grey

Chrome--green-gold

Alum-yellow

Copper Sulphate--green tan

Nickle Sulphate--yellow tan

Chromium Acetate--yellow tan

No mordant--yellow tan

Pot. Chromate--yellow tan

Sunflower (Helianthus)

The wild sunflower, escaped from cultivation, is common throughout the east. The clors obtained are very lovely yellows but are not fast unless set in an after-bath of chrome and vinegar. The flower heads are used dried or fresh. A large quantity is required for a good depth of color--one pound.

Alum mordant produces the prettiest color, especially brightened by washing in lye soap. The chrome after-bath saddens the color making tan of it.

Walnut, Black (Juglans nigra)

It is possible to dye a permanent black with walnut leaves if one has patience. Place in a kettle a layer of walnut leaves, one of wool, leaves, wool, etc. Cover with water, boil all day keeping water at proper level. Let cool in bath overnight. Next morning pour off the liquid into another vessel. Layer the wool and fresh leaves as before. Pour on the old liquor and boil again all day. Let cool in the bath again. Hang the yarn in the air a few days after which wash it. A fine black will result. Use the autumn leaves as they fall from the tree.

Walnut leaves or roots repeatedly boiled without copperas will yield a black dye.

The hulls and shells of the walnut produce as good a dye as the bark of the tree and with no injury to it. For brown, gather the hulls while green, cover with water and store them away so that the light will not oxidize the dye. Acids should be added tothe dye-bath to prevent oxidation--one tablespoon acetic acid. While walnut is a substantive dye, brighter richer colors may be obtained by the use of mordants. Alum yellows the brown, chrome gives a darker brown and with the addition of copperas or sumac an even darker brown may be gotten. Long boiling tends to make the wool harsh.

The longer the soaking hulls are kept, the darker will be the dye obtained. The hulls acquire an odor after a time. It is best to store them away from used places.

Black may be obtained by bottoming the wool with indigo and then dyeing it brown, as was done by the English.

Zinnia

Zinnia flower heads dried or fresh will give shades of yellow on wool mordanted with alum and chrome. Alum giving light yellow and chrome a darker shade with a green cast. Use one pound of flower heads to one pound of wool. The colors are fairly fast to light.

Section VI

WEAVING:

(From NATIVE 'N' CREATIVE, by Thelma Stinson, 1957, p.8-9.)

"A Navaho Loom for Weaving"

Do you need a sit-upon? There is one waiting for you not too far distant. Are you needing a carry-all or toter? Right near your grows the material. Would you like a table mat or rug? They are close by for the making.

Have some students gather grasses while others are making the loom. Dried grass is best. Green grass makes a lovely mat but will lossen when dried. Thin, delicate grasses make beautiful table mats. Sturdy, thick grass makes better rugs or sit-upons. To make the loom:

.. Decide how wide your mat or sit-upon is to be.

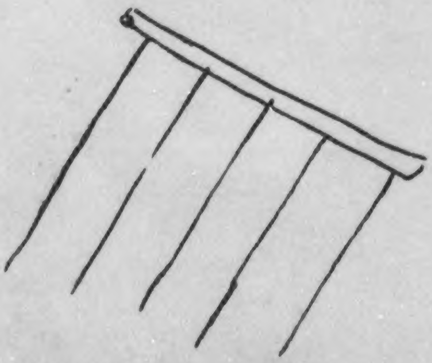
.. Cut two lengths of wood a yard long and an inch or so in diameter. Also cut pegs 16 inches long.

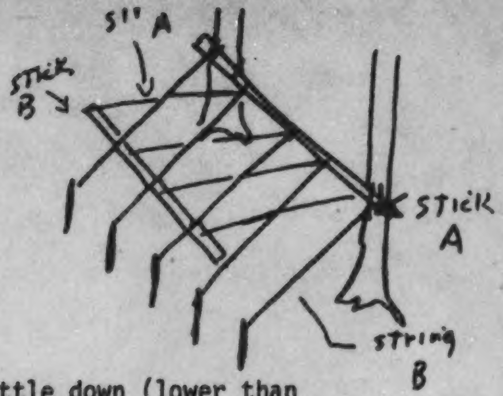
.. Select two trees growing close together-two feet or less-and lash one-yard length of stick (stick A) to the trees. (The stick may be lashed at the middle to only one tree, if you cannot find two trees growing near each other.)

Drive the pegs into the ground, three inches apart, leaving about a foot of length exposed. The number of pegs determine how wide the weaving is to be. The distance you set the pegs from the cross piece determines how long your article will be.

.. Cut a set of strings more than double the length you desire the finished mat or sit-upon to be.

.. Tie these on stick A, leaving one end longer than the other

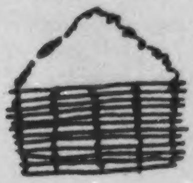


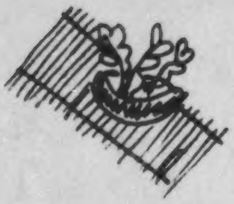


Leave string A longer.

.. Tie alternating strings to the pegs and the other strings to stick B forming the shuttle of the loom.

.. Here we go! Raise shuttle. Lay a bunch of grass across string A. Bring shuttle down (lower than the first set of strings). Pass second bunch of grass in between strings A and B. Raise shuttle. Lay on third bunch of grass. Lower shuttle to opposite side of pegs. Put fourth bunch of grass in between strings. Continue until you have made your weaving as long as you want it. Then cut strings from pegs and shuttle, tying each pair securely. Cut strings from stick A. The knots you tied before weaving those together saves you the difficult task of tying short ends now. After trimming ragged edges any camper will be proud of his finished product. Restring loom and it is ready to go again.





For a carry-all, fold a mat in half and "sew" ends together with twine, leaving two long ends to fasten together to form a shoulder bag or knapsack.

Remember! Working together is more fun! With one student to lift and lower the shuttle, two to insert grass, and one to prepare the bunches of grass, a sit-upon or rug can be finished in ten minutes.

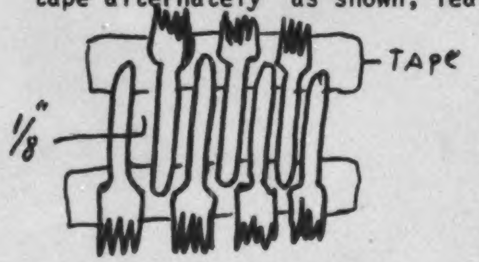
(From COLONIAL CRAFTS FOR YOU TO MAKE, By Janet and Alex D'Amato, p. 33-36.)

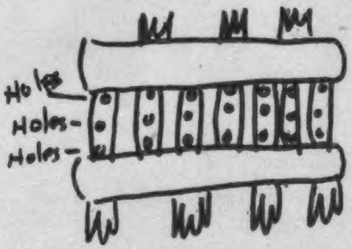
Weaving: (portable loom)

Not all weaving was done on huge looms. Various small ones were used to weave narrow pieces, and some were portable. Children learned to weave on a type of lap loom. A boy would weave his own suspenders or shoelaces; girls wove ribbons or cords.

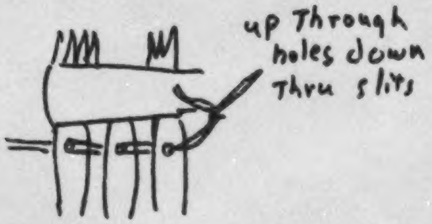
Here is a simplified portable loom to make. With it you can weave a norrow strip to use as a belt, strap or just hang up as a decoration. The basic piece of the loom, called a heddle, has alternate slots and holes that control lifting of the warp threads.
Materials Needed: For the heddle, use seven plastic picnic forks, masking tape, an awl, two ice-cream sticks, some small thumbtacks, a yarn needle and sturdy thread (buttonhole twist is good). For weaving you will need two colors of a medium-weight yarn.

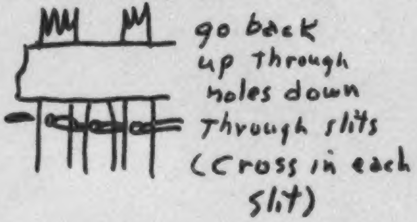
To make heddle, lay the plastic forks on a piece of masking tape alternately as shown, leaving about 1/8" between fork handles.

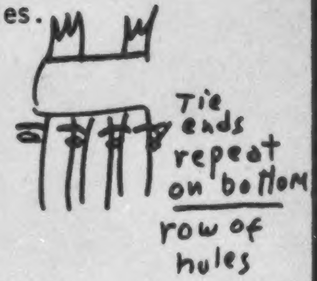



Holes
Holes -
Holes -

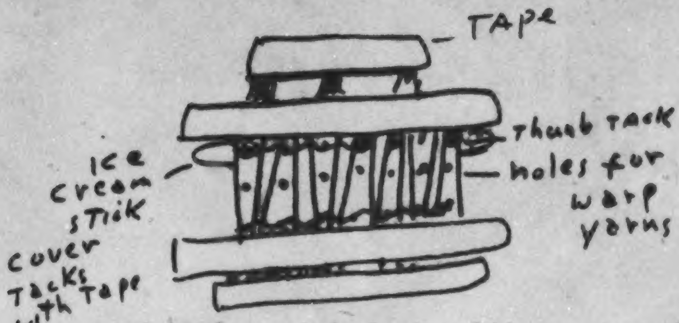
Press on tape to hold. Heat the tip of an awl in a low flame and push the awl through each fork handle, making three rows of holes.


up Through
holes down
Thru slits

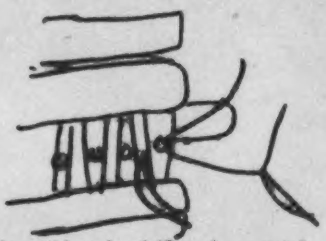

go back
up Through
holes down
Through slits
(Cross in each
slit)

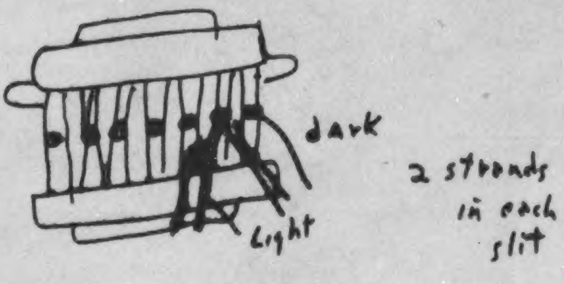

Tie
ends
repeat
on bottom
row of
holes

Using a heavy needle threaded with sturdy thread, go in and out of the top row of holes. Repeat across bottom row of holes. To keep stiff, place an ice-cream stick under top row of holes. Push thumbtacks through thnee holes, pushing in just enough to hold, but not


TAPE
Thumb TACK
holes for warp yarns
Ice cream stick
cover Tacks with Tape

not coming out in back. Add more tape front and back to cover thumbtacks and edges of forks.

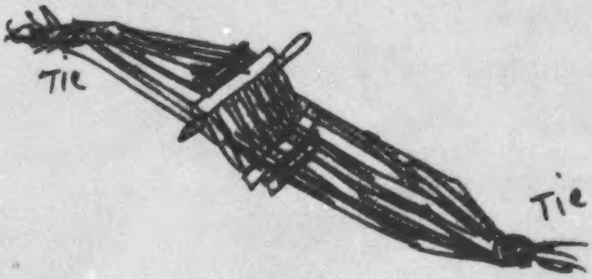


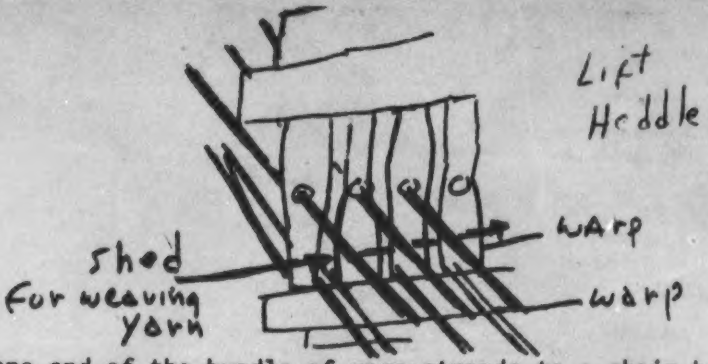

dark
Light
2 strands in each slit

Now the heddle is ready to thread. The long pieces that are controlled by the heddle are called "warp." To make a short practice piece that you can use as an armband or bookmark, cut nineteen pieces of yarn, eight dark and eleven of a light color, each about one yard long. (After you're ready to make an item of specific length, such as a belt, measure the length needed, add at least an extra 18" on each end.)

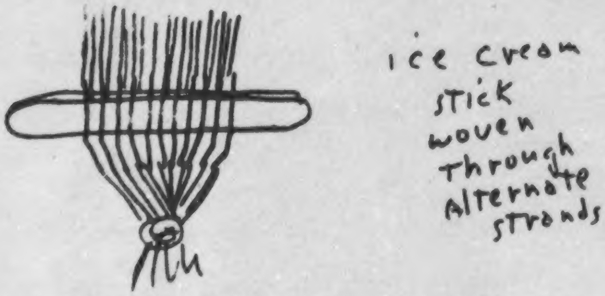
Using yarn needle, thread one strand of yarn through the first hole in heddle. Next, push two yarn strands through slit. Next hole, thread needle with another strand of yarn and go through hole. Continue across heddle. To create a pattern, suggested placement for light and dark colors is shown.

Knot ends of warp together with a loose knot. Repeat on other end.





Tie one end of the bundle of yarn strands to a chair back, handle, knob, tree, or bedpost. Sit on a chair and tie the other yarn ends to your belt. Move your chair back just far enough to make yarn war taut. Lift the heddle. All the warp going through the holes sho be lifted up; all the warp in the slits will remain lower. This sp (where the weaving yarn will pass through) is called a shed. When the heddle is pushed down, the yarn in the holes should be pulled below the warps that are in the slots; this space formed is the op shed. Move heddle up and down until it works.

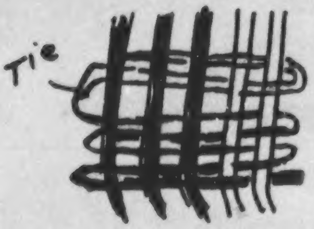


To begin weaving, warp should be properly spaced. Take another ice-cream stick and weave over and under the alternate warps, making a flat row near the knot at your belt. This can be removed after an inch or so of fabric is woven.

To weave, cut two pieces of yarn, one dark, one light, each about one yard long. Tie end of dark piece near knot, at your belt. Lift heddle and pass yarn through the shed; lower the heddle and pass yarn back through the opposite shed. Repeat; weaving yarn to left. Change shed, back to right. Change shed, to left again. And so on.

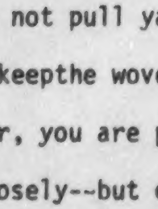
To push yarn down evenly, use a small 6" ruler or stick. Slide the stick into the shed after putting yarn through, and push down, sliding the newly woven yarn piece against the last row. Make it even, but not too tight. Do this with each row as you weave.

Weave four rows of dark color, then start the light. Tie end on warp, two strands from edge; go out to edge and start weaving light.



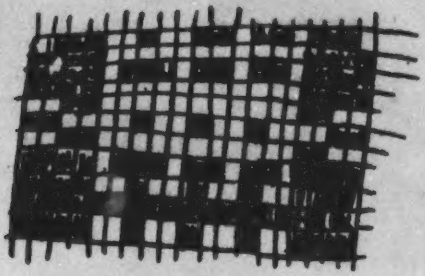
Weave three rows of light. Pick up dark thread (it can be left hanging while working other color), and weave four more rows. Then pick up the light and weave three rows, repeating this over and over again.

A pattern should begin to appear. The heddle has been making the weaving go under 1, over 2, under 1, and so on, and the reverse on the next row. If it is not working this way check heddle to make sure yarn warp is sliding in the slots as planned and that you are lifting it properly.



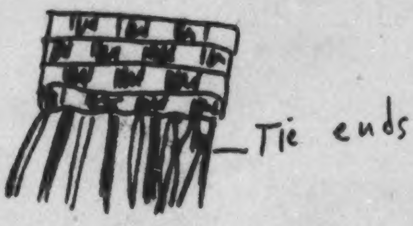
Pattern
can be
over 2 under 1
or others

Do not pull yarn too tight, or the pattern won't come out right. Try to keepthe wovenpiece the same width throughout. If it gets narrower, you are pulling the weaving yarn too tight. You should weave more loosely--but don't leave loops at ends. If the weaving threads are hiding the warp, you are pushing them down too tightly against each other. Leave them loose enough so warp and weaving yarns form neat squares tomake design.



Continue weaving up. If section already woven is too long to reach over,untie, fold woven strip around your belt,and pin it. New weaving area again is a comfortable distance to work.

When woven strip is the length desired, untie at both ends and slip off heddle. Tie warp ends, as shown, on both ends of weaving.



Although light and dark arrangement of yarn is suggested, any arrangement can be used so long as colors repeat in sequence. Each arrangement creates a different checked-type pattern.

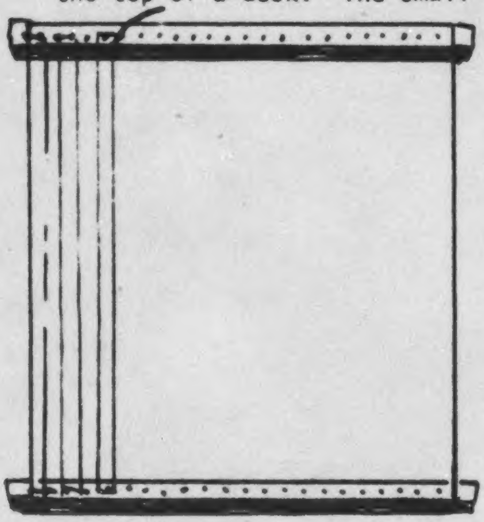
A lap loom of this type is portable, so the weaving can be tied on anywhere firm, and then untied an put in a box when you're ready to go somewhere else.

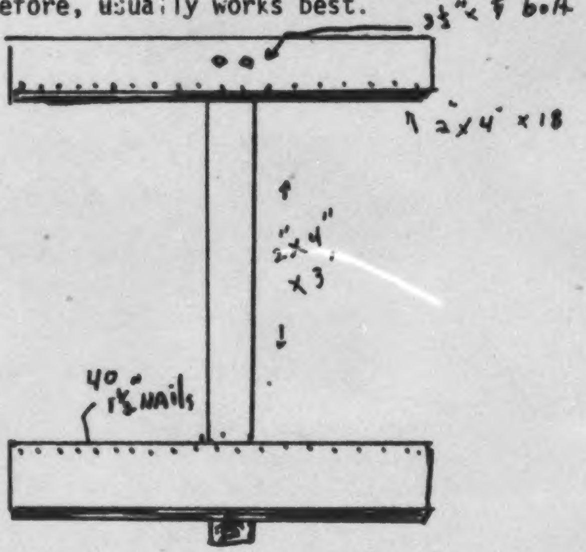
If this type of weaving appeals to you, maybe you know someone who does wood working and who could make a sturdy heddle or lap loom of wood by sawing slits and drilling holes. Ten or fifteen holes will make wider weavings. Sand wood smooth, thread the heddle, and weave. Many craft stores carry wooden or plastic heddles.

(From INSTRUCTOR, "Let Them Make Looms", January 1973, p. 107)

Simple looms are not too difficult to construct right in your classroom. Boys respond with great enthusiasm to the idea of weaving when they "begin at the beginning," by actually making their own looms. The weaver also takes home something more valuable than a single piece of weaving. He takes with him a way to continue on his own time with a craft in which he has become interested.

The cost of a small 1' X 2' loom is approximately eighty cents. Materials needed are a 6' length of 2" X 4" board, four 3½" x ¼" carriage bolts with nuts, and about 80 finishing nails 1½" long. A larger loom, 4' in length would take the same number of bolts and nuts, but twice the wood and nails. The larger loom is big enough to accommodate several weavers at one time, but it does not fit on the top of a desk. The small size, therefore, usually works best.





Actual construction of this loom requires minimal carpentry skills and materials. However, any willing and able fathers who might volunteer should be quickly enlisted! Many hands will make for light work and much less confusion. You will need hammers, hand saws, a sander, a drill with ¼" bit, and a amall wrench for tightening nuts.

Wooden vegetable crate can also be made into a serviceable loom. Just knock the sides off and pound nails in the ends. Be sure to sand all pieces very well before putting in nails. Use a tongue depressor for a shuttle, after drilling a hole in one end. Drill through stick into soft ground to avoid splitting depressor.

(From ARTS AND ACTIVITIES, April 1973, p. 33)

Materials: Sturdy cardboard approximately 8 X 12"; 1" wide adhesive tape; straight pins; string.

Step 1: Place a strip of adhesive tape covering the edge of both the top and bottom of the cardboard.

Step 2: With ruler and pencil, mark each ¼" along the entire top and bottom edges.

Step 3: Insert straight pin through adhesive at each pencil mark.

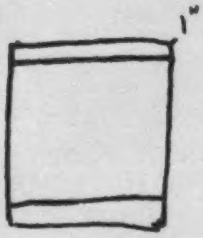
Step 4: Tie string (a square knot will do) to the first pin at the top of the loom. Then wrap the string around the first pin at the bottom of the loom. Continue with the string, wrapping it around two pins at the top and then two pins at the bottom until all the pins have string around them. Knot the string around the last pin.

Step 5: Attach a paperclip to the loose end of the string, and have the student weave about five rows with string before cutting. This will reinforce the end of the mat after removing the finished product from the loom.

Step 6: Weave a ruler through the strings, place the weaving material alongside, and gently press the grass or yarn tightly into place with the ruler. Remove the ruler and weave it on the alternate strings. Continue in the same manner until all but about one ince of the mat is completed. Then use string for the final five or six rows.

Step 7: The edges of the mat may now be trimmed evenly or left as fringe.

Step 8: Remove the pins from both ends. Your project is completed!



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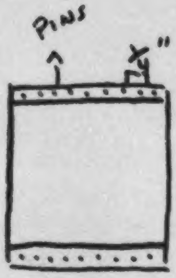
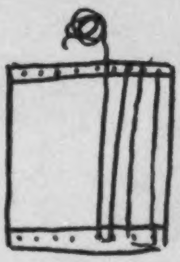
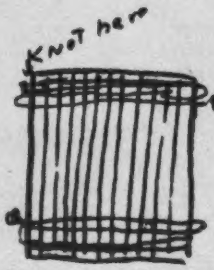


2 + 3



4 Knot To start



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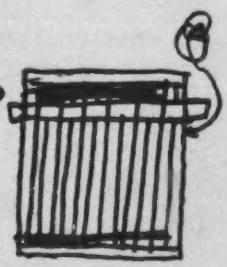

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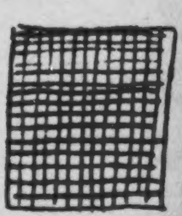


7+8

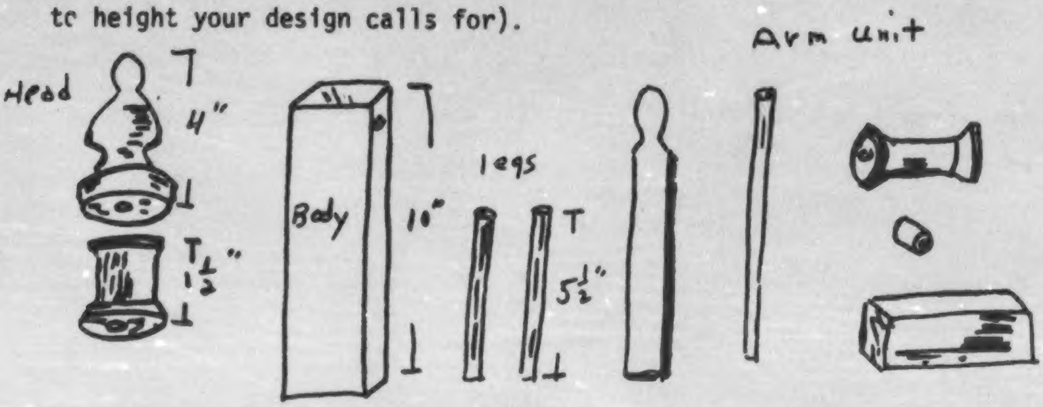
Section VII

TOYS AND GAMES:

Whirligig: A variety of toys with movable parts which flipped, turned, or twirled were whittled of wood. One such toy, the whirligig, may have been set on a fence post or held by a child while running. Each figure had exaggerated large flat arms which could spin around when they caught the wind. The head and body were generally carved out of one piece of wood and the arms were added on. An easier way to make a whirligigi is to assemble it from several availabel pieces.
Materials Needed: One wooden drapery rod end, one large and two small spools (from sewing thread), one piece of wood 1" thick, two pieces of 3/4" diameter dowel (5½" long), one piece 3/16" dowel (6¼"long), two wooden paint stirrers, tow large-holed beads (or washers).
For base, use a 5" square of 3/4" thick wood, or any wooden object of suitable size such as one side of a hamburger press, an old wooden salad bowl (inverted), or a large coaster.

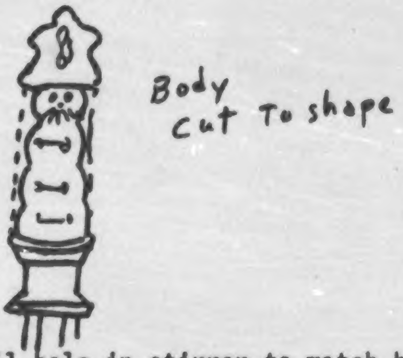
Also needed are wood glue, two nails, toothpicks, paste wax, base paint or primer (white latex), colored acrylic or enamel paints (blue, shite, black, and brown), gold-headed thumbtacks, dark brown furniture stain, and a 12" piece of gold cord (the kind usually sold for gift wrapping). Tools needed are a small saw, knife, hand drill, awl, and hammer.

(Instead of using body shown, you may want to design your own. Most any combination of wooden shapes can make an interesting figure. In a lumber yard, ask for a turning about 12" long or for a spindle post, which is used for assembling bookshelves. Or stack spools to height your design calls for).



To insert arm rod, drill a hole through the body piece at shoulder level. Make sure arm rod (3/16" dowel, 6¼" long) slides through; it must turn easily in this hole.

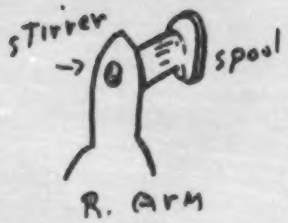
Glue all body pieces together. Hammer two nails up through the base, about 1½" apart, into ends of leg dowels. Add glue and affix legs to base. Glue body to legs.

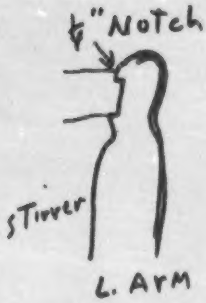


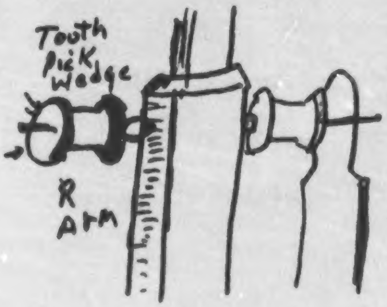
For right arm, drill hole in stirrer to match hole in spool.

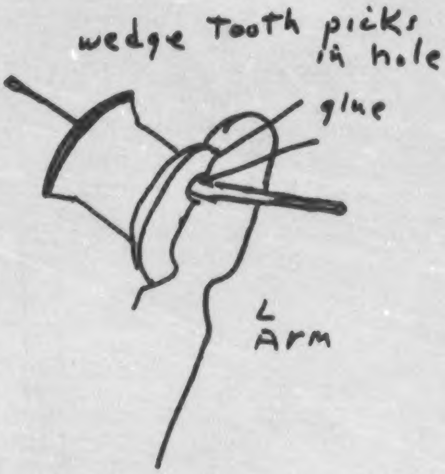
For left arm, saw a ⅛" notch in the other stirrer about 1" long to fit over end of spool. Slide spool onto rod and glue stirrer to spool and rod. Break a few pieces of toothpicks, add glue, and wedge pieces into hole at other end of spool. It is very important that this spool be firmly attached tothe stick. Allow to dry.

Rub a little wax onto arm rod in area that will be between the spools so it will turn smoothly. Slide on one bead (or washer); slide rod through hole in body, add other bead (or washer) on other side. Slide right arm spool onto arm rod. Insert and glue toothpick pieces inside right arm spool so spool will not turn on rod. Make sure beads do not touch the body. Leave about 1/8" on eabh side of body. Rod should turn freely in body.







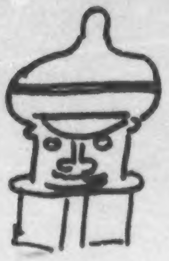


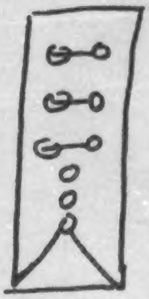
Glue right arm stirrer stick to end of spool making one arm up and one down. Like a windmill, this position makes the whirligig catch the wind better and keep turning.

Allow glue to dry. Chetk to be sure both spools are firm on the rod; if not, add more glue and more toothpick wedges.

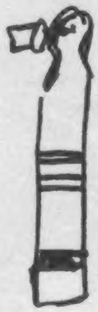
Give entire figure a base coat of white latex paint. Let dry and then paint with colors, making any kind of character you want: soldier, or a policeman or an official in fancy clothes--all popular characters for colonial whirligigs.

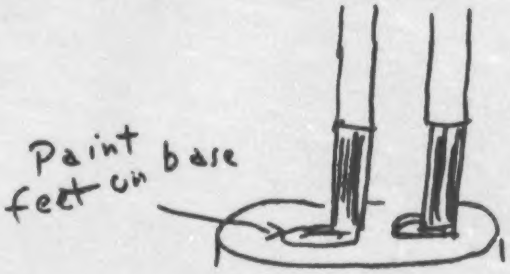
For a soldier, paint black boots with feet painted right onto the base. Paint jacket and hat blue. Mix colors to make tan (or white) trousers, brown hair, skin color for face and hands. With a fine brush, paint features in black.





Glue 1" pieces of gold cord on chest as shown. Glue a piece of gold cord around hat. For buttons, use an awl to make holes in places shown. Add glue to tips of gold-headed thumbtacks and push in palce. Also add two thumbtacks in back.





To give it an old antiqued look, brush brown furniture stain over entire figure. Wipe off immediately.

(From HOW TO MAKE WHIRLIGIGS AND WHIMMY DIDDLES AND OTHER AMERICAN FOLKCRAFT OBJECTS, By Florence H. Pettit,1972, pp. 25-33.)

Gee-haw whimmy diddle is not only fun to say, but the toy is fun to work, too. A person who knows the trick can make the propeller at the end of one stick whirl to the right when he says "Gee!" then make it stop dead, and shirl to the left when he says "Haw!" This is done by simply rubbing a second stick back and forth over the notches cut in the first one. The words gee and haw were used to command a team of horses when the driver wanted the animals to turn to either the right or the left. They might be called the first directional signals.

So let's discover how to whittle a whimmy diddle and see if you can learn the trick of operating the notched stick. We call this process whittling because it is simpler than carving the cherry-wood goose, and we are going to use green twigs that will not be changed very much by simple knife cuts. When seasoned wood is shaped into a whole new form through the use of such tools as knives, chisels, or gouges, the craft is usually known as wood carving of sculpture. It is, however, quite correct to describe any small wood project as being either carved or whittled.

Materials and Tools You Will Need

Three Twigs, cut from green trees or woody shrubs. Two of them should be about 9½ inches long and about as thick as a pencil; one, about 6½ inches long and a little thinner. Each stick must be perfectly straight at one end for at least 5 inches; the other end may be heavier and slightly bent or curved. Whittlers in the Southern highlands who make this toy use mountain laurel, which grows wild there. They think laurel twigs are best because they are tough and comparatively straight You can use green twigs from maple, oak, witch hazel, or any other tree or shrub that has pencil-thick, rather straight branches.

Jackknife or pocketknife

Sharpening Stone

Can of Oil (household type), to lubricate the sharpening stone.

Leather Strop, at least 2 by 4 inches, for smoothing the knife blade

Pruning Shears (optional), like those a gardener uses

Ruler

Awl. This is a small, inexpensive, sharp-pointed steel tool with a short wood handle. It is very useful for piercing holes in wood, cardboard,or leather, and for marking or scratching wood or scribing metal.

Two 4-Inch Metal C-Clamps

Vise (optional)

Coping Saw

Hand Drill with two standard-size bits--1/16 inch and 1/32 inch.

Flat scrap of Wood, for practice.

Small Screw of brass or steel, 1/16 inch in diameter and 3/16 inch long.

Screwdriver, a tiny inexpensive one

Cutting and Smoothing the Twigs

With the knife or the pruning shears cut the twigs from live trees or shrubs when they are green. Trim off neatly with the knife any leaves and branching twigs.

In your workshop measure off with the ruler the proper lengths for the three twigs, marking them by scratches with the awl. Fasten the twigs, one at a time, in the C-clamps or vise and cut them off straight across with the coping saw. Shave the cut ends with the knife so they are smooth. Then using the edge of the knife blade, scrape off a little of the rought outer bark until the sticks feel smooth.

Select the better of the two long sticks, and from the slim end saw off a piece 1½ inches long; smooth off both cut ends as before. Put the little 1½inch piece aside in some safe place like a small dish or lid so you can find it later. It is to be used to make the propeller.

Making the Notches

Measure in 2¼ inches from the straight, smaller end of the stick that is now 8 inches long and mark the place with the awl. Continue measuring in the same direction making a mark every 3/16 of an inch until you have made six more marks. They must be very accurately spaced, and you can do the marking with a sharp pencil, if you prefer it to the awl. These marks are to serve as the points where you will make the preliminary center cuts for the seven little V-shaped notches to be cut in an absolutely straight row along the stick. Put this marked stick aside temporarily and use the other 9½ inch twig to practice cutting the notches.

Measure off and mark every 3/16 inch until you have seven marks, as you did on the first stick. Using one C-clamp (not the vise), fasten the practice stick down tight on your worktable about 2 inches in from the front edge of the table and parallel to it, with the clamp around the table edge, and the marks on the twig up. Do not clamp on the marks, and try not to damage the stick by clamping too hard.

Holding the knife pointing away from you, put it exactly on the first mark, straight across the stick. Press down very hard, as if you were trying to cut the stick in one slice--but don't! Make a straight cut, but go only about 1/8 inch deep, or about one third of the way through the stick. If the wood is so tough that you can't cut it by pressing down, don't saw back and forth with the blade. Rock the knife a little by raising and then lowering your hand, pressing

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down hard on the spon as you do so. Don't lift the knife blade itself until you have made the cut.

Continue making the same kind of cuts, 1/8 inch deep, on each mark, holding the knife straight across the stick and keeping the cuts in a straight line.

Now with the stick still clamped to the table, make two slanted cuts, one to the right and the other to the left of each of your first cuts. Aim toward the base of the first cut and press down hard enough each time to take out a small, clean V-shaped piece of wood. Leave a tiny space between the notches, so that they will look like those in the diagram. This is an important part of the job because if the notches are uneven and not in a perfectly straight line, the propeller will not spin. The spacing of the notches is what sets up a vibration when the stick is rubbed, and the vibration is what makes the little propeller whirl.

If your notches look like nice even teeth, you can now go ahead cutting the notches in the final 8-inch stick in the same way. If you need more practice, do another row on the opposite side of the practice stick. You can tell just by looking at the stick if the row is straight and the teeth are even.

Drilling Holes

Here are a few facts about drilling holes, an important necessity in working on wood and metal projects when something must be attached to something else. The different sized steel tips that fit into the part of the drill with the handle are called drill bits. These are slipped into an adjustable hole in the end of the drill and are fastened in place by twisting and tightening a collar. The drill is then operated by turning a side-wheel handle, like an eggbeater. You have to push the drill into the wood at the same time as you turn the handle. Wood or metal must always be firmly clamped for drilling. Since a hand drill requires the use of two hands, you have no choice in the matter. But even when you use an electric drill, as a safety precaution, never hold something with one hand and drill with the other. Wood or metal must always be lightly prepunched to make a starting hole for the drill bit and to keep the bit from slipping. A drill does not split wood because it cuts the hole as it turns, and does not punch its way in like a driven nail or screw.

If the drill is a tool new toyou, practice making a few holes in a scrap of wood. Poke a few scattered starting holes with the awl, fasten the bit into the drill, clamp the wood, and make the holes. You can push the drill horizontally away form you, as if you were pointing a pistol, or drill straight down, vertically, into the wood. Either way works fine.

Drilling Holes for the Propeller

Now we must make a straight, very small hole in the 8-inch stick at the straight end, from which we measured in 2¼ inches to begin the notches. The other, thicker end will be the handle. The hole is for the screw that will attach the propeller. Punch a small starting hole with the awl exactly in the center of the end of the stick. Fasten the stick in the vise or with the two C-clamps, being careful not to damage the notches. With the 1/16 inch bit drill a hole about ½ inch deep straight into the end of the stick. In this case, it is better to work in a horizontal position.

Some whittlers like to shave away small sections of the brownish inner bark, which has been left on the stick, to make decorative bands of light-colored wood running around the stick. Whether you do this or not is up to you.

Your notched stick is now finished, and you must next drill a hole through the center of the small 1½ inch propeller stick you put aside earlier. Measure in 3/4 inch from either end of the little stick; mark this center spot and make a starting hole with the awl. Put a small flat scrap of wood on the table near the edge to "back up" the place where the hole is to be drilled, and to protect the table. Use one C-clamp around the edge of the table to fasten the propeller stick, with the marked hole facing up, on top of the wood scrap. Use the 3/32 inch bit to drill a hole straight down and entirely through the center of the stick. Remove the C-clamps.

Shaping the Propeller

The next step is to whittle down the center section of the propeller so that it will be thinner and flat on the sides where the hole goes through. Tis is partly for looks, but it also will make it easier to attach the propeller and allow it to spin more freely. One quarter of an inch in from each end of the stick, make a shallow ring-around cut, going entirely around the stick. Beginning at one of those cuts, on the side where the hole is, slowly shave down and flatten the center section of the stick, cutting right past the hole. Then, beginning at the ring-around cut on the other end and on the same side of the stick, shave off a little of the wood so as to meet the first shaved-off section in the center of the stick. Now to complete the flattening of the center of the propeller, shave off the opposite side of the stick in the same way, working gradually until the propeller is about 1/16 inch thick in the middle, with the hole through the flat sides, as shown in the diagram. Leave the two ends of the stick whole and round, as they are.

Attaching the Propeller

Use the screwdriver and the small screw to fasten the propeller to the end of the notched stick. Put the screw through the propeller hole by hand. Press the point of the screw gently into the hole at the end of the notched stick, and withthe screwdriver, work it in slowly and very straight. Leave the screw sticking out far enough so that the propeller whirls so freely that it even wobbles a little. The screw should fit tightly even though it is not screwed all the way into the hole in the end of the notched stick. Now you can see why the two holes had to be so accurate in size--so that the screw will fit just right and allow the propeller to spin. This cannot be done by simply digging out or punching holes with a sharp tool.

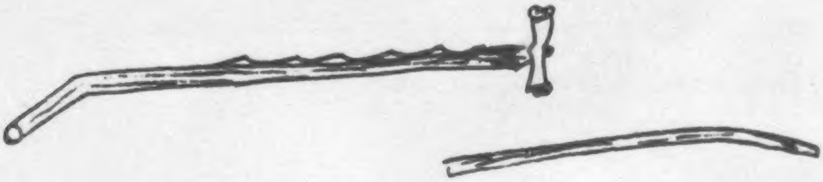
Your gee-haw whimmy diddle is now ready to use. Hold the notched stick in your left hand at the end away from the propeller. Hold the shorter, smooth rubbing stick under your right hand as if it were a knife and you were going to cut a piece of steak. Rut the stick from left to right, back and forth along the top of the row of notches. Don't rub too fast, and don't press down very hard. The vibration will make the propeller whirl. Anybody can do it this way, but there is a trick to making it change direction at the spoken commands, "Gee!" and "Haw!"

The Trick

Hold the rubbing stick in your right hand with the forefinger of that hand on top of the rubbing stick and across the notched stick. Bend the tip of your forefinger down just enough so that it gently touches the far side of the notched stick as you rub. This makes the propeller "gee," or spin to the right. Now move your right hand slightly forward across the stick and away from you, sothat your forefinger no longer rubs the notched stick. Instead let the end of your right thumb, or thumbnail, rub along the near side of the notched stick. As soon as your thumb touches the near side of the stick, the propeller will stop momentarily. Keep right on. rubbing with both the stick and your thumb, and the propeller will reverse itself and "haw," or spin to the left in the opposite direction. If you hold your right thumb and forefinger rather close together, no one will notice that your right hand shifts back and forth slightly as you give the commands. Your friends will think you are doing a magic trick with your whimmy diddle.

Let everybody try it. Probably no one will be able to figure out the secret unless you decide to explain how it works. Some perople never quite get the knack of it, and nobody knows why. With the very same sticks, the gadget will work perfectly for one person but not for the next.

Now we have told you how it works. A scientist will have to tell you why it works, unless you can figure it out for yourself.



Spool Bugs: (From BOYS' LIFE, October 1971, p. 60-61)

Spool Bugs can be lots of fun. When wound up, they will crawl along any smooth or rough surface and will climb over small objects.

To make one, you need a large carpet-thread spool, one 1" and one 3½" length of 1/8" wood dowel, a ½" iron washer, a 1/8" heavy-duty rubber band.

File a notch in one end of the spool to act as a lock to keep the short dowel from twisting under tension. Thread the rubber band through the spool hole, slipping the short dowel under one end and the iron washer and long dowel through the other. The iron washer acts as a bearing. Notches may be filed around the rims of the spool for added traction.

To use, wind up the rubber band inside the spool with the long dowel, set the spool on the floor, then watch it crawl along in a lifelike manner.

Tumbling Blocks:

Tumbling Blocks are magical. They can turn animals into fish or birds--and back again--merely by flipping the top block. Hold the set of blocks between your thumb and fingers, then rotate the top block one-half turn and watch the others flip-flop end to end. Turn the top block back one-half turn, and the blocks will cascade inthe opposite direction. The secret of operation is in a double hinge made with cords.

To make a set, you need four ¼" X 2 3/8" X 3½" pieces of pine or basswood, two 34" lengths of middy braid or shoelace and twenty ½" No. 20 wire nails.

Following the sketch (above center), fasten the cords tothe blocks with the wire nails. Use a pair of long-nose pliers to hold and push the nails into the end grain of the blocks rather than try to hammer them in. A drop of white glue placed on the nail heads will anchor the cords to the nails.

Add pictures if you like. Pictures on the backs of the blocks must be fastened upside down so they will be right side up when the blocks are tumbled. A novel and baffling display can be made by placing animals on the front and trees on the back. As the blocks are flipped over, the animals disappear into the forest. Another interesting arrangement will let you turn wood into stone. Glue pieces of wood-grained contact-type vinyl on the front side and a stone pattern on the back.

Buzz Saws:

The whine of the saw blade cutting logs into lumber at the local sawmill was a familiar sound in pioneer days. So children imitated it with this simple toy.

You can make a buzz saw two ways--use a large overcoat button or a 2" diameter cardboard disk with notches cut in the rim for the saw blade. Punch two small holes about ¼" apart in the center of the cardboard disk, then thread a 40" length of string through the holes and tie the ends together to form a loop. To thread the button, feed the string through two opposite holes and tie to form the loop.

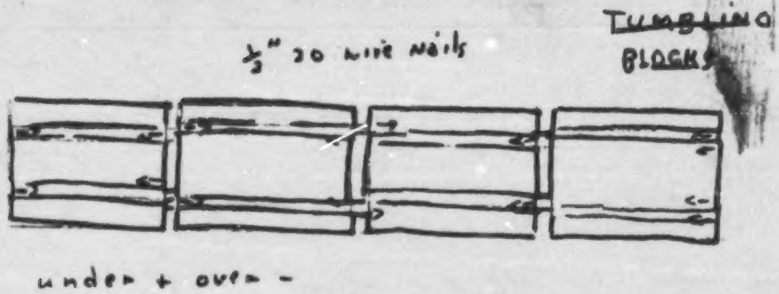
To make the saw buzz, hook the ends of the loop over each thumb. The disk or button must be in the center of the string. Now swing the saw in a circle to wind up the string. Next, pull gently outward, causing the saw to rotate and completely unwind the string, then release the tension as the centrifugal force of the revolving blade winds up the string in the opposite direction. Continued pulling and releasing the tension will keep your buzz saw going.

Spinning Tops:

Spinning Tops are very old toys. These are easy to make and require only 3" diameter cardboard disks and 5" lengths of ¼" wood dowel, or substitute round pencils.

Before cutting out the disks, draw two lines at right angles to each other. Color opposite quarters--use any colors. Drill a ¼" hole in the center of each disk. Point one end of each dowel in a pencil sharpener, then push dowel through disk.

To spin, roll dowel between palms of hands, then let top rotate on a smooth surface.


Tumbling Blocks
½" 20 wire nails
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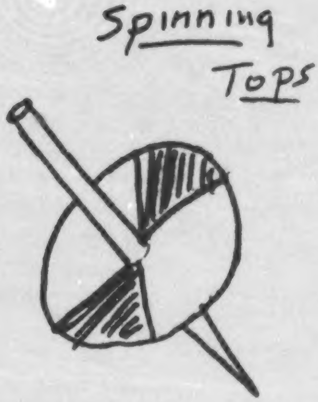
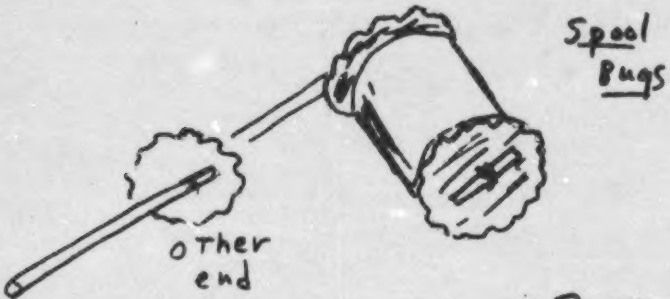
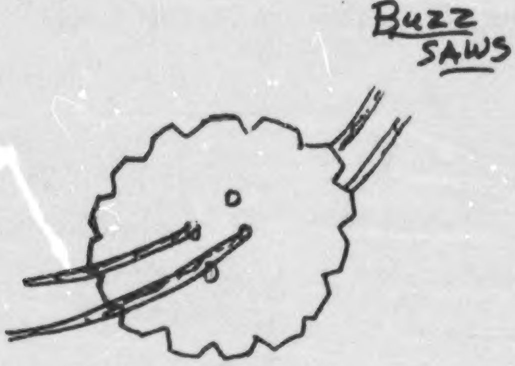
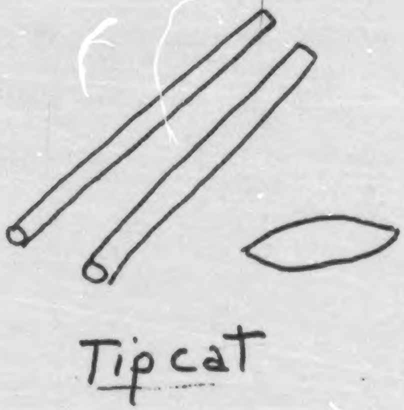

Spinning Tops


Spool Bugs
other end





Section VIII

CANDLE MAKING

Hand-dipped candles (Art)

(from TEACHER, December 1973. p. 55.)

Making hand-dipped candles can spark your students' creativity and produce attractive gifts. Start by melting odds and ends of candles in a tin can. The wax is highly flammable so the can should never be placed directly on the heating unit. Instead, put it in a pan of water which completely covers the unit to catch drips. Also, it's a good idea to shut the heater off before the children begin dipping. (You might wnat to experiment beforehand to get an idea of how hot the wax should be.) Wicks can be purchased at a craft shop. Cut them in 12" strips, which allows for plenty of wick above the wax so fingers don't get burned. Each child dips a wick, waits long enough for the wax to harden and repeats the process until his candle is made. To make the holders, pour plaster of paris into cut-down milk cartons. Insert the candles just before the plaster hardens.

Sand Candles:

(from CREATIVE CRAFTS, June 1971, pp. 28-29.)

You can make sand candles at any time of year, in a cardboard box by using building supply sand, sandbox sand, or even fish bowl gravel.

You will need a supply of candle wax and packets of candle color, wicking, stearic acid of Sno-Wax, a meat or candy thermometer, a portable stove or burner, and a double boiler of some kind. The double boiler can be simply a two-pound coffee can for wax and a pan for water--but don't forget the hot pads! A kettle with heat-proof handle and pour spout is safer, especially with children. Let nature supply the mold, which will be sand intermixed with water.

Well-dampened sand dug with the hands will hold whatever shape you care to make. Into your design pour melted wax, to which either stearic acid or Sno-Wax has been added (never both), heated to between 175 and 225 degrees, depending on the amount of sand you want for your candle crust. The hotter the wax when pouring the more it will seep into the sand, creating a thicker crust or stonelike exterior. Allow setting time; a six inch diameter candle should take one to two hours, the process can be hurried by using the refrigerator or a cold back dorrstep.

Metal core wick, available in different sizes for different width candles, is handy in making sand candles because a flat coil can be wound on one end on which the wick will stand when inserted into poured, still liquid wax. This eliminates the problems of wick drift during setting. The metal core, made of manganese, also burns away.

While wax is still tacky, add what decorations you will--"islands" of stones, sea shells, driftwood, top-sprinkled sand--and wait till completely set. Then dig out candle and shake slightly to remove excess sand.

An extra thick sand shell can be made by adding plaster hardener to the water used for dampening the sand mold. Another way of insuring a heavy shell is to mix three parts sand with one part hot wax and mold quickly around finished candle with palette knife, carving in designs if desired. Or use the bowl in which sand and wax are combined as a mold, packing mixture tobottom and sides with spoon or spatula--not hands, because paste has to be very warm in order to mold and must be worked rapidly before it sets. When paste has cooled, add candle wax.

A one-inch shell of wax and sand paste is recommended for patio candles, which are most attractive suspended by leather laces or thongs. When candle is complete, make three equidistant holes from top through sides with an electric drill or heat a straightened coat hanger which will melt a hole when pushed through candle. Into each hole insert a strip of lacing. Tie double knot at each outside edge and knot other ends together for hanging.

Candle wax, available at hobby stores, is refined paraffin wax and is much less expensive than the super market variety; its consistency remains the same so that it does not film as paraffin does when cooling.

To figure quantities needed, it may be helpful to note that two pounds of wax will make two nine-inch container candles. A one-inch square of concentrated candle color (49¢) is enough to tint an entire ten pound slab of wax, which costs about $3.00. Color is shaved into melted wax until desired shade is obtained. To test color, drop a piece of clear wax into colored wax or dip a bit of colored wax into cold water.

Stearic acid added to wax, three tablespoons per pound, renders candles drippless and hardens them so they will not droop in warm weather. Because it will dissolve without stirring, it can be added directly to melted wax. Use either stearic acid or Sno-Wax, a product of Novelcrafts Manufacturing Company of Rogue River, Ore. 97537, which makes your candle opaque, giving a truer color and high lustre, and also hardens the candle so it burns longer and resists temperature changes. Use one teaspoon per pound, melted in separate pan over low flame. Watch carefully, moving back and forth to prevent burning. Add small amount of melted candle wax to melted Sno-Wax and mix thoroughly. Add this mixture to melted candle wax and again mix thoroughly.

Wicks are the secret to the successful burning of any candle. Basically, the bigger the candle, the bigger the wick should be. The smaller the wick, the slower the candle burns. A big wick in a small cnadle would cause unnecessarily rapid burning.

More than one wick can be used in the large diameter bowl-shaped sand candle. Or braid three wicks together. Be sure to measure candle depth and cut wick at least one inch longer.

While metal core wick is most convenient to use, as described above, flat braided wick can be used by sinking weighted wick into freshly poured candle; tie top to stick or pencil laid across top of sand mold. Or position weighted wick before pouring. Burying wick in sand before pouring should also hold it in place.

Another method is to dip wick into melted wax and lay flat till hard; when candle has hardened but is still warm, run wire or coat hanger through center of wax, insert wick into hole, and fill gap with additional melted wax. If wax is firmly set, heat hanger, push through wax, and insert wick.

When making sand candles unless you have a sandbox handy, use a sturdy cardboard box lined with plastic. Any favorite dish, bowl, jar or figurine shape can be duplicated by pushing the object into wet sand, removing carefully, then patting by hand to firm sides.

Other Candles:

(From McCALL'S "The Best of Needlework and Crafts" p.140-145.)

General Instructions:

Equipment: Newspapers. Waxed paper. Double boiler or large and small cans and a large pan. Stick for stirring wax. Candy thermometer. Salt or baking soda(in case of fire, pour on slowly.)

Materials: Paraffin wax. Stearic acid. Wax color dyes: wax coloring cakes or way crayons in desired colors. Candle wicking.

Directions: Note: Be sure you are working in well-ventilated area. Cover working are with newspapers and waxed paper to catch spilled wax.

Melt wax in top of double boiler or in can set in pan of water. Never melt wax over direct heat or leave unattended on a lighted stove. Keep salt or baking soda at hand. Add stearic acid (to harden wax; the ratio is 90% to 10% stearic acid) and wax color dyes.

To color wax, shave off pieces of color cakes and gradually add to melted wax until color is a shade or two darker than desired color; wax will lighten in color as it solidifies. Test color by letting small amount solidify on spoon. Do not attempt to mix batches of wax colored with different types of dyes; if dye bases are not the same type, the wax will not fuse. Stir wax to blend color. Use new can for each color.

To determine amount of wax needed, fill mold with water, then pour water into can or top of double boiler. Note level and add 1/8 more for amount of liquid wax needed (to allow for shrinkage). Melt wax, putting in one pound at a time. Temperature of wax should be about 160 F. before pouring into mold or dipping.

Insert wicks as indicated in directions.

Pressed Flowers: Pressed flowers and sprigs of pine combine for charming candle decor. We used minosa, daisies, and baby's breath--select your favorites for unique designs. Flowers are pressed in a book, dipped in wax, and then added to readymade candles of any size.

Chunky Candles: Chunky candles are molded in soup cans and milk cartons cut to the desired height. Candles are colored with crayons, and the designs are "incised" by tapping ordinary hardware--nuts, screws, knobs, and skewers--against the sides of the finished candles.

PRIMITIVE POTTERY:

Clay for primitive pottery can be found in many locations, usually around water; lakes, springs, rivers, etc. It is sticky, slippery and usually blue grey in color, though sometimes it is reddish brown. To test its value for pottery, roll a cigar shaped piece and bend it double. If it doesn't crack, it is plastic enough for use. If it contains a great deal of sand, it can be removed by dissolving the clay in water to the consistency of thick cream then pouring it off into another container leaving the sand behind. Let it evaporate to working consistency.

For bonfire firing clay must be tempered, that is, have a substance mixed with it that will allow expansion and contraction without causing the clay to explode or crack. Too much tempering material causes the piece to crumble. The main types of tempering are:

1. Fiber-chopped up plant fibers such as palmetto, spanish moss, shredded grass, etc. This is the least desirable tempering because it is difficult to work in thoroughly.
2. Shell--pounded to the consistency of coarse sand. Don't use too much.
3. Limestone--pounded to the consistency of coarse sand.
4. Grog--pounded fired clay or pottery--can be purchased at ceramic shops. A good use for your failures, broken pieces, etc.
5. Sand--coarse sand that has been sifted to remove the very fine sand, then washed to remove sticks, leaves, dirt, etc.

Before forming the clay it must be prepared in the following ways:

1. Mix thoroughly--no lumps or uneven thickness. The easiest way to do this for large batches is to make slip (dissolve clay in water to the consistency of thick cream) then strain it through a coarse screen and allow to evaporate to working consistency.
2. Add tempering material and mix thoroughly. Don't add too much or it will crumble when fired. Clay must still be plastic enough to bend without cracking.
3. Wedge the clay to remove air bubbles and compress the clay molecules. This can be done by throwing the clay hard against a cloth covered hard surface 10-20 times. Check for air bubbles by cutting the clay with a fine wire.

After these three main steps, the clay may be formed in any of the usualy ways. Pinch pots are the simplest. Slab, coil, sculpture and wheel formation are the usual methods. Directions for these may be found in any ceramics book. Be careful that no part of the clay is thinner than ¼ inch or thicker than ½ inch. For sculpture, allow the clay to dry on the outside, then scoop out the center to proper thickness.

Dry the clay thoroughly in the sun or any warm dry place. If an over is used, be sure it doesn't get any hotter than 115 degeees or the clay will crack. Allow more drying time if humidity is high. Dry clay will feel neutral or warm when placed against your cheek. If it feels cool--it isn't dry.

To fire the dry clay, dig a pit 18 inches deep and big enough around to allow 6 inches of fire around the pottery. If you line the pit with aluminum foil it will speed the firing process, but is not necessary.

Place plenty of tinder in the bottom of the pit, then build a platform of 1"-2" sticks. Place the dry pottery on this. Log cabin style, build above the pieces then place another platform over them. If many pieces are to be fired you can build 2 or 3 layers this way, making sure the top layer is covered with wood. Add some larger wood 3"-5" in diameter to the top, then light the fire. Allow it to burn until the coals reach a bright red orange color, then fan it until the coals become light yellow or white and pottery becomes incandescant. Add more fuel as needed. When pottery is incandescent, allow the fire to die and cool naturally. Don't remove pieces till fire is cool or they will warp.

OTHER CRAFTS:

Soap Making:

If you have ever heard your grandmother (or an older friend) tell how soap was made when she was a little girl, then you know that it was not always possible to go into a store and choose a special soap' product for a specific job. But did you know that before your grandmother's time people cleaned themselves with such things as olive oil, earth, or plant ashes? Some people even used sand, bran, or pumice stone to scrub themselves to remove dirt.

Most pioneer homes had to be completely self-sufficient, and one of the most important jobs your grandparents and great-grandparents had was to make enough soap every spring to last through the year. Spring was usually the time chosen for soap making because all the ashes from winter fires had been carefully saved in a barrel. In addition, all the fat that could be spared from cooking was saved. When the hogs were butchered during the winter, the fat was rendered and stored for baking and frying and spring soap making.

Water was poured into the barrel of ashes and allowed to trickle out through a hole near the bottom. As the water seeped through the barrel it dissolved something in the ashes known as potash, which was in the form of a brown liquid essential to soap making. The liquid and the grease were mixed in certain proportions and boiled together in a large iron pot over an open fire. It was a slow process and usually the boys of the house had the job of keeping the fire going under the big kettle. After many hours of cooking, the mixture thickened until it was a soft, jelly-like, yellow mass. This was homemade soap, used to wash all the family, clothes, floors and sometimes probably even the family dog.

Story Telling:

(From "Story Telling on 'Animal Hides'", YEARBOOK, 1973, p. 71)

Before the Indian had a written language, one of the ways he told the storeies of his victories, sorrows, exploits, and celebrations was by painting them on animal skins. To do this, he would use earth of different colors and dyes from berries mixed with animal fat. The story usually started in center of the tanned hide and was told in a circular fashion (clockwise), gradually winding to the outside. (It is harder for children to follow this method.)

You can simulate this early method as a means of introducing the students to one area of early Indian art. Each student was given a large piece (about 1 ½ X 2½') of tan wrapping paper from which he tore the shape of an animal hide of his choosing. Symbols used by Indians in telling their stories were drawn on a large simulated animal skin and placed on the wall. The symbols were discussed with the class and they learned of the different ways their ancestors kept records of their adventures. When they were familiar with the symbols and the methods of storytelling with symbols, they were ready to start. Theri story could be one they had heard or imagined.

The stories were first drawn on the "hides" by pencil. They were then painted heavily with crayon, using earth and berry colors familiar to the early Indian. After the story was completed, they crumpled the paper until it was well wrinkled. The next step was to smooth it and place it under the water faucet until it was wet all over. After being spread on an old towel or newspaper it was sprinkled with brown tempra powder. Fingers were used to smear the powder over the wet paper until it was well covered.

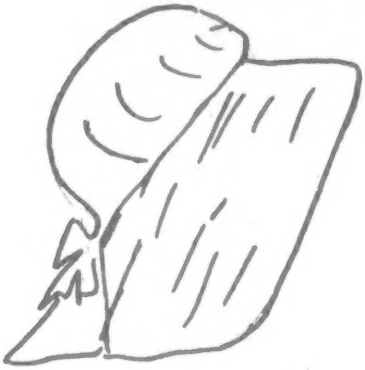
While the paper was still quite wet, a rag was used to rub excessive water and paint to the edges, making them darker than the center. The wet "skin" was then hung on the room "clothesline" until dry. When dry, the paper becomes crisp again and looks even more like a hide.

The students were delighted withthe results. It was a real "fun" experience from the tearing to the final hanging. After the project was completed, we sat in a circle and each student exhibited his work and told his story.

Sunbonnets:

(From DECORATING AND CRAFT IDEAS, May 1974, pp.26-27.)

General instructions for making bonnet shown:



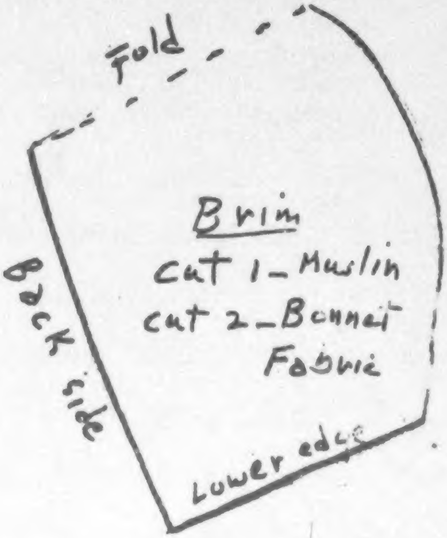
To make sunbonnet shown above: trace and enlarge pattern pieces, pin enlarged pattern pieces to fabric to be used for bonnet and cut out. Cut one brim piece from muslin, crinoline or pellon and stitch in place between two fabric pieces for brim. Machine stitch around bonnet brim, following curved contour of front of brim. Make rows of stitching approximately ¼" apart over entire bonnet brim.

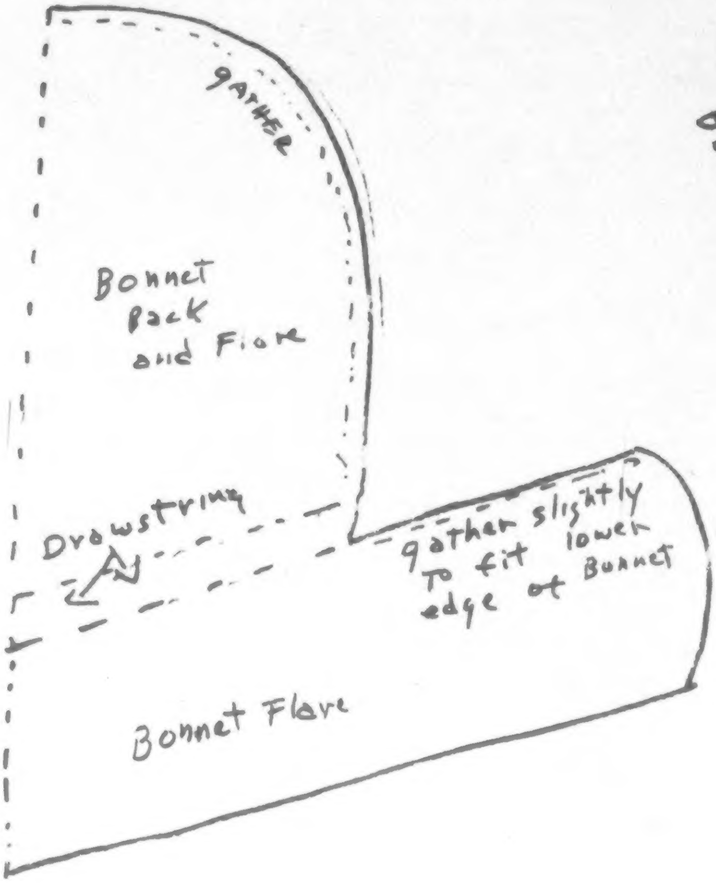
Make two rows of stitches about ¼" apart for drawstring. Make small slit in center on what will be inside part of bonnet. Make drawstrings from 2 pieces of fabric, stitching ends in place and pulling other two ends through slit.

Gather curved part of bonnet back to fit straight side (back side) of bonnet brim, then slightly gather extended end of flare to fit bottom side of brim and sew pieces together.

For bonnet ruffle, cut a strip of fabric long enough to gather and fit around brim and bonnet flare, hem one side with very narrow hem and gather other side around brim and flare.

Cut and hem pieces for ties under chin and tie for bow at back of bonnet. Stitch ends of ties in place and tie bow in back. Tie ends of drawstring to gather as desired.


Fold
Brim
cut 1 - Muslin
cut 2 - Bonnet Fabric
Back side
Lower edge

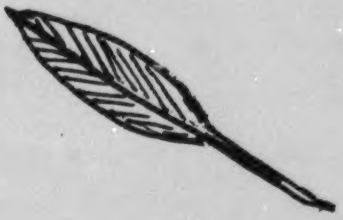

gather
Bonnet Back and Flare
Drawstring
gather slightly to fit lower edge of Bonnet
Bonnet Flare

Quill Pen:

(From NATIVE 'N' CREATIVE, By Thelma Stinson, p.15.)

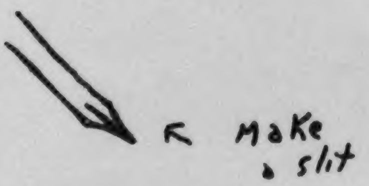
Have you ever triee writing will a quill pen? For any student a note is an adventure when a quill pen is used and the ink comes from berries. If there happens to be a ram near the school with geese or turkeys in his poultry yary, you are all set. If not the teacher might find a few geese or turkey feathers with him! (They are bing sold in camp supply stores now if a natural source is not available.)

If you have a goose or turkey feather:



..With your knife cut the end of the quill on a slant, resembling a pen point.

..Very carefully make a short slit at the tip of the point. This will hold the ink.



..If yours is a feather from a gull or other water bird, cut the end of the quill on a slant but do not slit it. A water bird's feather is soft and will not hold its shape when split.

If you plan to use a pheasant feather, check to see if there is a hole in the end. If so, it will not work. Find one with a closed end. It will write with its natural point. Just dip and write.

For ink use poke or other berries. Practice printing names as a starter. Straight strokes will be easier.

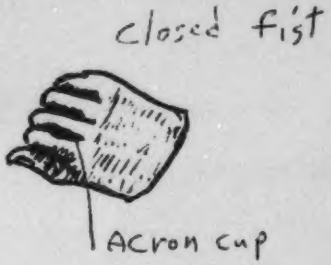
Whistle:

(From NATIVE 'N' CREATIVE, By Thelma Stinson, p. 10.)

Be there a person who can refrain from blowing a whistle? Remember the wide blade of grass you laid between your two thumbs and with hands cupped you blew and produced a whistle? Here are some equally simple methods of making ourselves heard!

We used an acorn cup

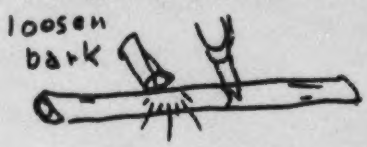
You can make one too, if you will:



- .. Find the cup of an acorn of medium size.
- .. With palm of the hand down, fit the cup between the first and second fingers, with open side of the cup up. Fit it as close to the knuckles as possible.
- .. Close your hand into a fist so that the flesh almost conceals the acorn cup.
- .. Fit your lips over the bent knuckles of first and second fingers and blow. You may have to shift the acorn cup a bit till a shrill loud whistle is produced.

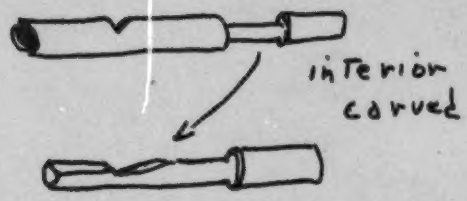
We made a wooden whistle.

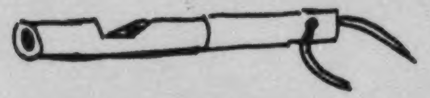
This is a good, substantial whistle to make. All you need is a branch of hickory, willow, or basswood, and your pocket knife. (If the wood is from a young tree and the sap is still rising, the results are best.)



- .. Cut a six inch length from the branch, cutting it diagonally at one end and straight through on the other end.

- .. About an inch from the squarely cut end cut through the bark all the way around (girdle the branch). Cut a notch about an inch from the diagonal end.
- .. Pound gently the part of the branch which contains the notch. This is to loosen the bark from the wood. Be careful not to split the bark.
- .. When loose, twist the bark gently until it can be slipped off.





Now whittle out the notch you started, and cut a thin sliver from the notch to the end. Slip the bark back in place. Now try your whistle. If the sound is not satisfactory slip off the bark again and whittle a little more on the notch and flat surface you made from the notch to end of whistle.

Removing the bark from an inch or so of the other end and drilling a hole there with your knife point enables you to wear the whistle from a cord around your neck. After experimenting with your first whistle you will decide that it is not nearly as complicated as you thought.

Indian Sand Painting:

(From WOMAN'S DAY, "Native American Indian Crafts", p. 60 & 78.)

Subjects in modern sandpainting are often decorative representations of the elements and figures in nature, or they can be purely geometric in design. They are usually quite delicate in line and subtle in color and would be difficult for an amateur craftsman to recreate. For easy reproduction, and to demonstrate the basic techniques, the sandpaintings shown are quite simple and bold in design and color.

They are adaptations representing a Thunderbird, cactus in blossom, and a Navajo rug pattern.

The Thunderbird is a popular subject in Indian art. It is often worked into jewelry, weaving, and pottery decorations. Our painting interprets the motif in strong shades of red, yellow, and turquoise, and is inspired by an imposing figure bearing the double-tipped arrow of thunder and lightning as evidence of his power.

The intriguing cactus painting represents the desert plants in blossom. The central figures are persoified images of the cactus plant, complete with facial features and prickly spines. Surrounding the figures is the Rainbow Guardian, wHo carries the keys to the elements in his hands and lends protection tothe blossoming cactus. The use of the Rainbow Guardian, dancing figures, and whirling logs is popular in sandpainting, and these figures have recently bdcome favorite symbols of Navajo weavers in their "Yei" rugs.

In the third sandpainting, a very different approach was taken. It was inspired by traditional Indian rugs, and has imitated the fascinating interplay of geometric shapes favored by the Navajo. And following the tradition of many popular rug designs, the sandpainting is executed in muted shades and surrounded by a distinctive symmetrical border.

Procedure:

All three sandpaintings can be duplicated by following the General Instructions. Materials required are listed below, and specific instructions and special materials follow for each design.

Basic Materials:

Pencil. Paper. Carbon paper. Ruler. Felt tipped marker. White Glue. Scissors. 2 paper cups. Stirring sticks. Spoon. Fine and medium wide paintbrushed. Newspapers. Sand, sandpaper, and ¼" -½" plywood, are specified for each design. Note: Colored sand is generally available at gardent centers, aquariam shops, and many variety stores.

General Instructions:

Enlarge one of the designs on paper using a 1" grid, as follows: On a rectangular sheet of paper, mark dots 1" apart, making the same number of spaces as there are squares aroung the edges of pattern. Form a grid by joining the dots across opposite sides of paper. Check to make sure you have the same number of squares as diagram. With marker draw in each square the same pattern lines you see in the corresponding squares on diagram. In this way your pattern is enlarged to full size.

Prepare your work area by spreading out newspapers and arranging your materials around it. (Hint: This is messy work--be generous with your newspaper.) Fill one paper cup with water. Fill the other with 2 ounces of water and 6 ounces white glue; stir the mixture thoroughly and set aside.

Traditionally, a sandpainting started by applying a background of natural color sand to a wooden panel. To simplify the process, sandpaper can be substituted. First trim the sandpaper to the exact size of your plywood base. Then glue the underside of the sandpaper to the base by brushing on an even coat of full-strength glue. Very carefully press out air bubbles as you smooth the sandpaper to the wood--this is crucial for professional-looking results.

When you are finished with a glueing step, always soak your brush in cup of water to keep the bristles supple.

After the glue has dried, trace your enlarged pattern onto the background by placing over background and inserting carbon paper face down in between. Use a soft touch to keep lines light. Very dark lines will show through light colors of sand. If this happens, just apply an extra coat of sand when painting is complete.

In general, outlines are painted first; then solid areas are filled in; accent lines are painted last.

Paint your design one color at a time. First, dip your brush in the glue and water mixture, and paint one section of the design, covering all guidelines with the glue mixture. Then paint solid areas by following the guidelines and filling in the outlined shapes.

When an area is completely covered with the glue mixture, generously spoon designated color of sand onto the glued area; wait a few seconds, and pour excess sand onto newspaper. Turn the painting on its side and give it a firm tap. Then lift the top sheet of newspaper and return excess sand to its container.

Repeat this procedure with each subsequent section of the same color. Never allow glue to dry before sprinkling on the sand. If a section is particularly large, paint it in small portions. Continue painting sections until you have completed all of one color.

Always let the sandpainting dry before you begin the next color in the same manner. Paint adjacent sections by applying the glue mixture as close as possible to the next section. This prevents unwanted open spaces in the painting. Continue to paint in the design, one color at a time,until the painting is completed. Then build up the texture by applying a second coat in exactly the same way.

Thunderbird:

Size: 6" X 9"

Materials: All Basic Materials, plus 6" X 9" plywood. 6" X 9" medium grain beige sandpaper. 8 ounces of sand in red, turquoise, yellow, black, and white.

Painting Sequence: Paint colors as follows, using color key for placement on background: 1. Black (B), 2. Turquoise (F), 3. Yellow

(C), 4. White (A), 5. Red (D). Fill in the large red wing area in 2 sections. First paint the area above and outside the arrow, then fill in the area below the arrow. Apply a second coat in the same sequence.

Cactus With Blossoms:

Size: 8" X 10"

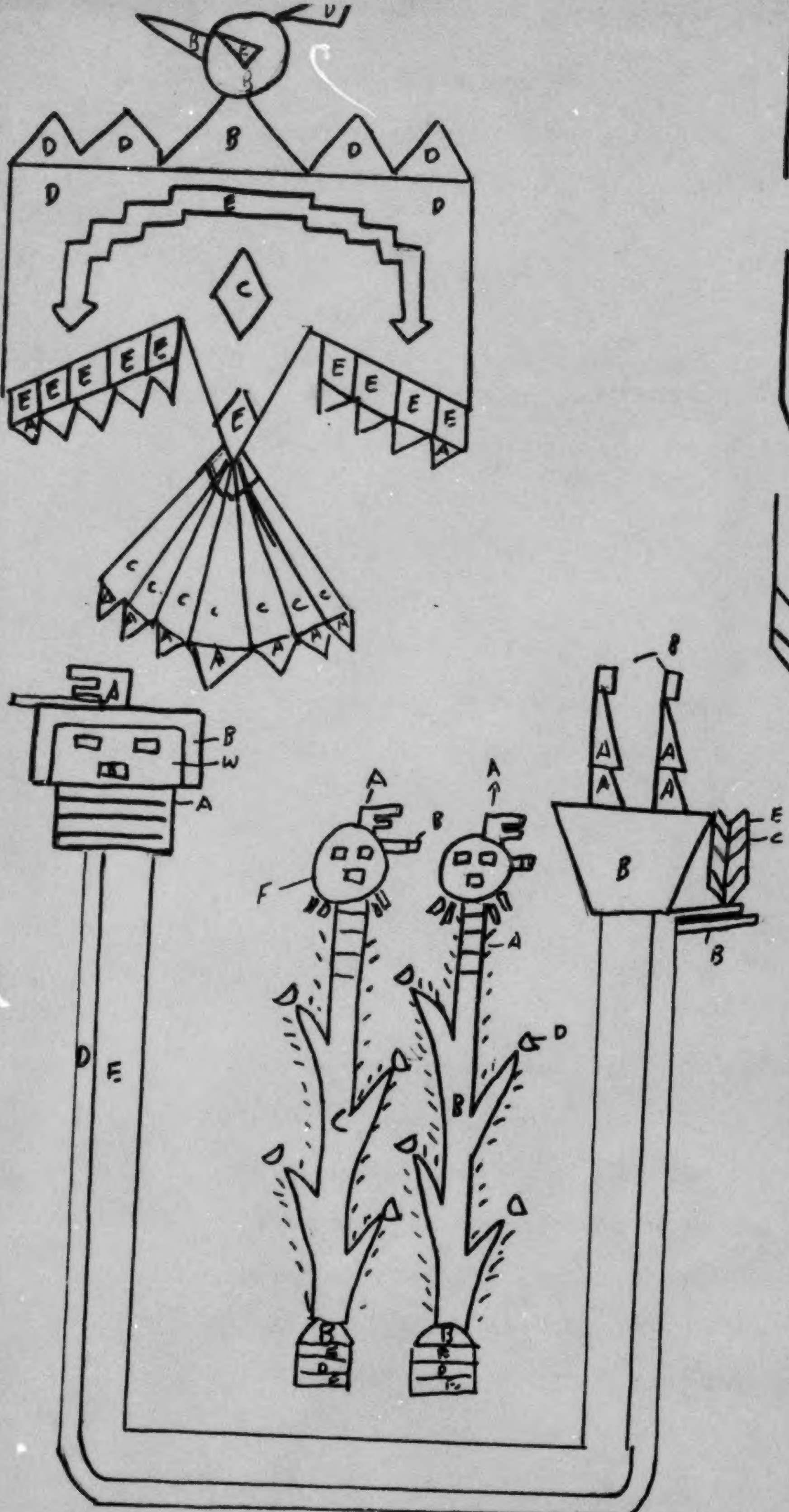
Materials: All Basic Materials, plus 8" X 10" plywood. 8" X 10" coarse brown sandpaper. 8 oz. of sand in red, turquoise, yellow, black, white, and dark brown.

Painting Sequence: Paint colors as follows, using color key for placement on background, but omit thin accent lines until last. 1. Black (B), 2. Yellow (C), 3. Red (D), 4. Turquoise (E), 5. White (A), 6. Brown (F). Apply a second coat in the same sequence. Then apply thin accent lines in the colors indicated on pattern and color key.

Navajo Rug:

Materials: All Basic Materials, plus 8" X 10" plywood. 8" X 10" coarse brown sandpaper. 8 ounces of sand in black, yellow, dark brown, and white.

Painting Sequence: Paint colors as follows, using color key for placement on background: 1. Black (B) in central shapes, inside border line, and border shapes. Next fill in the black outside border by painting a straight line around the outside edges, and then paint the zigzag outling around the yellow(C) border area. Since the border consists of long, continuous sections of single colors, break it up into small adjacent sections. Continue as follows: 2. Yellow(C) 3. White (A), 4. Brown (F). Apply a second coat in the same sequence.



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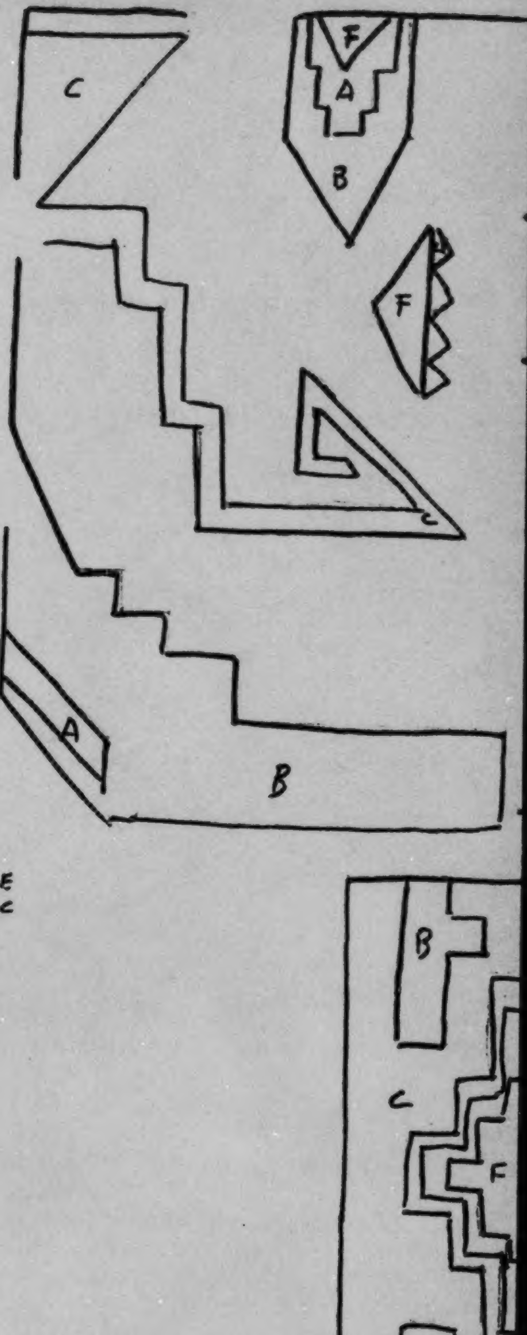

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Section XI

PIONEER GAMES AND PASTIMES:

(From BOY'S LIFE, October 1971, "Old-Time Toys and Games", p. 60-61)

Early Americans were a rugged and inventive people--as evidenced by the toys and games of the era. Since there were no hobby shops and very few commercial toys available, children had to scrounge around for things to play with; so they often invented toys and games with the materials they could find. Occasionally a friendly blacksmith or cabinetmaker would give them scrap pieces of materials. So toys were simple, but lots of fun to play with. Here are some toys and games that will help you relive the days of old.

Metal and wooden Hoops were two of the easiest materials, to get, so pioneer children made use of old buggy wheel rims and wooden barrel hoops obtained at the local blacksmith shop or the cooperage. Since buggy rims and wooden barrel hoops as well as woodlen bicycle rims are hard to find these days, we have substituted metal bicycle rims. Pieces of broomstick are used to hit glancing blows along the tops of the hoops to make them roll. Held along eithter side of the rim, the stick guides the hoop in the direction you want it to go. You can have a hoop race with two or more players.

(From TO BE A PIONEER, by Paul C. Burns and Ruth Hines, 1962, p.96-97,)

Pioneer Games and Dances:

Going to Jerusalem

Arrange the chairs in two rows with the backs together, one chair less than the number of players. All players but one are seated in chairs. He is the leader. The leader marches around the chairs saying, "Going to Jerusalem! Going to Jerusalem!" When he wishes, he stops in front of a player and taps three times on the floor. This is a signal for the player to follow him. The leader continues to stop in front of players until all are marching. Then the music starts. The players march around the rows of chairs until the music stops or some other signal is given. Then they all hurry for a chair. The player without a chair is out of the game. He takes a chair from the group as he leaves. The game continues until only a few are left marching. The players out of the game may clap for the marching.

The game may be played without a leader, the players all ready to march in the first part of the game. In a schoolroom with seats, the players may march up one aisle and down the next aisle, and so on. The seat that is not used may be marked by placing something on the desk.

Puss in a Corner

Station children around the room by table, chairs, doors, desk, or anything serving as corners. Puss goes from one child to another saying, "Pussy wants a corner." The child approached replies, "Go to my next-door neighbor." The other children beckon to each other and try to exchange corners when Puss is not looking. If Puss can get a corner, then the child left out becomes Puss.

Three Deep

The players from a double circle, the players in both circles facing the center of the circle. Two players acting as runner and chaser are stationed on the outside of the circle. At a signal, the chaser starts after the runner. Ther runner may escape being tagged by stepping in front of any couple. When he does this, the person on the back of the file of three becomes the runner and may be tagged by the chaser. When the cahser tags the runner, the runner becomes chaser and tries to tag him. Running through the circle is permissible, but the runner may not stop within the circle except to stop in front of another couple to escape being tagged.

Games from America's Past:
(from BOYS' LIFE, October 1974, p. 53.)

In America's pioneer days, boys played a lot of games that are still familiar--like Prisoner's Base, Blindman's Bluff, Leapfrog, and Hide and Seek.

They also played some that you may not know. Tipcat, for instance, which was popular before the Revolutionary War.

The simplest variation of Tipcat uses a seven-inch piece of broomstick or dowel--the "cat". Cut another piece about four feet long for the bat. Draw a two-foot circle for home base and put a brick or large rock in it. About 40 feet away, draw a circle for the other base.

The first batter leans the cat against the brick on home base. The other players scatter in the field. The batter taps the cat near its top with the bat so it sails end-over-end straight up. Then he hits the cat as hard as he can. If a fielder catches the cat in the air, he and the batter change places. If nobody catches the cat in the air, the fielders try to relay it home before the batter gets to the other base and back. If the batter beats the throw home, he scores one run and bats again. If not, he's out and the next player in rotation bats.

A game called Shinny is even older than Tipcat. Shinny came from Scotland and can be played any time of the year, but it's best on ice or hardpacked snow. For the puck, use a tin can or rubber ball. For sticks, any crooked pieces of wood, or old brooms, will do.

Divide into two teams. One player from each team "shinnys up" by facing a player from the other team over the can in the center of the playing area. They tap their sticks on the ground, then strike them together, alternately, three times. After the third time, they start trying to hit the can toward their opponent's goal line. Passing and bodychecking are just as in hockey. Score one point each time the can passes the goal line. After each goal, play starts with another shinny-up.

Kick the Can is a variation of Hide and Seek. Draw a three-foot circle on the ground and stand a tin can in the center. "It" closes his eyes and counts to 100 by fives while the other players run and hide. When "It" gets to 100, he calls, "Ready or not, here I come," and starts to search. When he spots someone hidden, he calls the player's name and races for home base. If he gets there first, the other player becomes the new "It." But if the hidden player wins the race to home, he kicks the can as far as he can. "It" must then--as a sort of penalty--retrieve the can before starting to search again.

In America's earlier days, almost every boy carried a jackknife. It was useful for whittling and also for a game called Mumbletypeg--if it had the proper blade.

In Mumbletypeg you toss or drop a knife from various positions while sitting or kneeling. The idea is to make the knife stick in the ground. For safety's sake, the blade must be blunt and have no cutting edge. A good knife for Mumbletypeg is your Scout knife; the perfect blade is the leather punch.

The player has to do a series of about 20 stunts. The first are easy, and they get harder as he goes along. If he does two easy stunts--"front" and "Back"--and then on "Punch" the knife fails to stick in the ground, he can say, "I'll take a chance," and try "Punch" again. But if he misses he gives up the knife and, when his turn comes again, he must start over with "Front." If he doesn't want to chance it, he can pass to the next player. Then when it's his turn again, he starts with "Punch" instead of from the beginning.

All of the Mumbletypeg stunts are described in two books you may find in a local library: "How To Do Nothing With Nobody All Alone By Yourself", by Robert Paul Smith (W.W. Norton Co., 1958) and "The Complete Book Of Games" by Clement Wood and Gloria Goddard (Doubleday, 1958). The first book has drawings of most of the stunts.

Baseball is almost 140 years old, and there's a variation called One Old Cat that's nearly that old. You can play it with a den or patrol-size gang on any diamond, using either baseball or softball equipment. Home plate and first base are the only bases used.

One Old Cat is a lot like Tipcat, except that the ball is pitched. As in Tipcat, the batter tries to get a hit so that he can run to first and back home before the fielders can get the ball home. In One Old Cat, three strikes are out.

Section XII

ACTIVITIES:

1. Hold contests using the pioneer games. Have a field day of just pioneer games.
2. Make the games and do a demonstration for the other students in playing the games.
3. Make and sell the simple pioneer games. Use the money for a Pioneer party.
4. Have a pioneer party with costumes,food and games.

SECTION C

Adapted from FOXFIRE and A MUSEUM OF EARLY AMERICAN TOOLS By Eric Sloane

WOODS AND TOOLS USED BY THE PIONEERS:

The fact that an area's natural resources are the most vital factor in determining the way of life of a self-sufficient people may seem too obvious to need mention. However, the role that wood played in the settling of Tennessee cannot be overemphasized. Whereas wood is now often a luxury, it was an absolute necessity here for centuries. It provided shelter for people and animals, fire for warmth and dooking, material for wagons, tools, furniture, household utensils, toys, decorative objects, and a thousand-other things. The trees themselves provided fruit, nuts, syrup, and the ingredients for many home eemedies, and even gave clues as to what the weather would be in the coming months. The lives of the pioneers would necessarily have been drastically altered without this versatile, readily available resourse.

The wood itself was used wither green or seasoned, depending not so much on what kind of wood it was as on what it was to be used for. Pieces that had to fit tight and stay tihgt--the handles of tools, for example--has to be seasoned or else the wood would shrink and pull away as it dried. Items such as pegs, wheel spokes, fine furniture, buckets, and barrels had to be made of seasoned wood or they'd fall apart. For rafters, fence posts and rails, shingles, rough furniture, and so one, the aprts did not have to fit so tightly together to remain serviceable, so they could be constructed of green stock.

There are several ways to cure wood. The method chosen depends on the size of the pieces and how quickly they are needed. Very small pieces which would fit into a pot were boiled. The water would draw the sap out, and when the water itself evaporated, the wood would be ready to use. People also dried smaller pieces by the fire overnight, being careful that they didn't get too hot and warp or burn. They would often use this method to season tool handles, drying only the end that fit into the head of the tool.

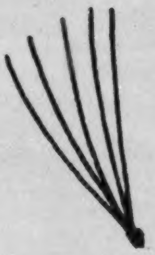
Another way to cure lumber is to use a dry kiln. A large rack would be built three to four feet off the ground and covered with a roof--and sometimes walls--to keep out the rain. The lumber would be stacked crosswise on the rack for maximum air circulation, and under the lumber several small fires would be built.

The simplest method of all was to stack the lumber crosswise and just leave it alone until it was needed. Small straight pieces such as tool handles and parts for furniture could be bundled together so they wouldn't warp, and set in a dry place. The problems was that it could take months for the wood to be properly cured, but for many, that made little difference.

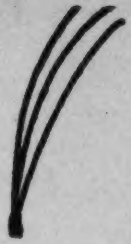
"12 Trees That Helped Build America"

The story of our forests is the story of our nation. Huge forests that covered the hills and valleys helped the Pilgrims survive after their landing on Cape Cod in 1620. The Pilgrims used trees for wood to build homes, schools and churches and as fuel for heat. Later trees were used for ties for railroads across the country and poles that carried wire for electric power.

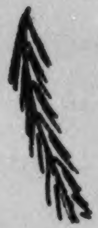
Eastern White Pine--An important tree in Colonial America for homes and for the masts and spars of ships. It is still an important timber tree and one source of knotty pine panels.



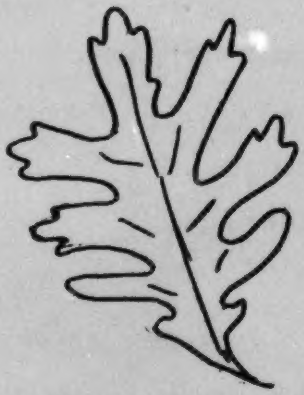
Longleaf Pine--Found throughout southeastern U.S., this tree is a major source of turpentine, pitch, resis, building lumber and wood for railroad cars.



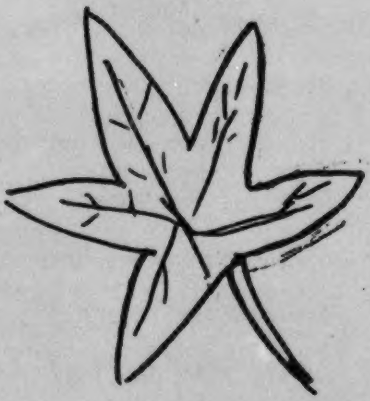
Western Hemlock--A tall graceful tree, this hemlock is important for timber and is also a prime source of pulpwood. Tannin, used in tanning leather, is gotton from its red inner bark.



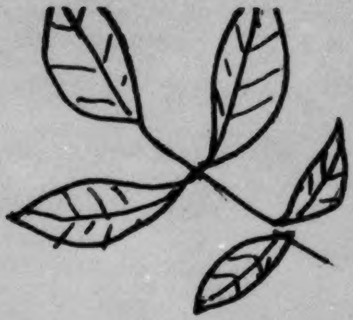
White Oak--The oaks have always been our most important hardwood timber trees. Early American mansions, public buildings and ships' hulls were of oak.



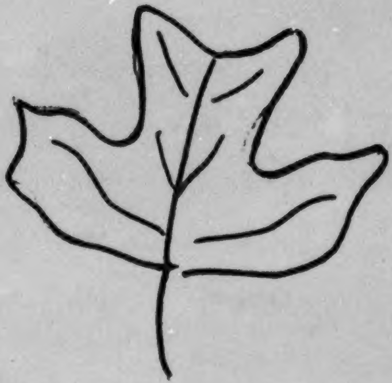
Sweet Gum--The sweet part of the sweet gum is a sticky substance that oozes from cuts in the trunks and branches. The strong, light wood is widely used in furniture. It is also an important tree for wood pulp.



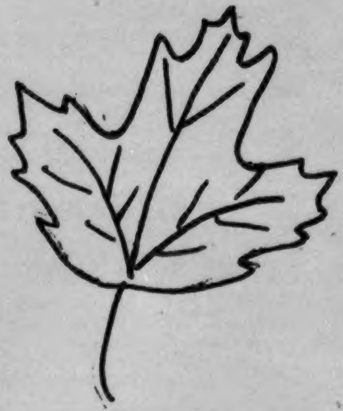
Shagbark Hickory--The hickory lumber supplied spokes for the wagon wheels that crossed the continent and the ax handles that cleared the wilderness. Hickory wood smoke is used for curing ham.



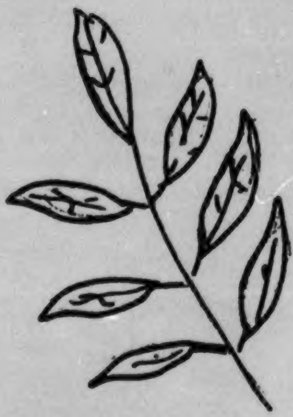
Yellow Poplar--The tallest hardwood in the East it is a favorite ornamental tree and an important source of wood for musical instruments, television cabinets and other furniture.



Sugar Maple--This is the tree from which maple syrup and maple sugar come. It is also an important source of fine hardwood for furniture. It grows in the eastern U.S. and Canada.



American Ash--has leaves set opposite each other on the twigs. Recognizing the different varieties of ash trees is difficult for there are red, white, blue, green, black, and yellow ashes. Shown opposite are the two most valuable kinds--American (or white) ash and black ash. All of the ash trees have a single winged seed. Ash bends with supreme strength, but since it splits with precision, splints for baskets, chairs, and hoops were made from the black variety. Blue ash produced a dye from its



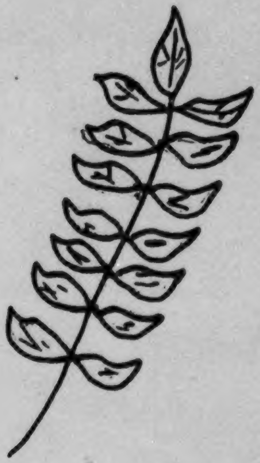
Hickory--Hickory is a hard wood with a slightly wavy grain that is quite difficult to work. Even so, it was desirable as it is heavy, fairly flexivle, and very durable.

Green hickory makes the best fires according to all the people we spoke to. It takes some time to get started, but it gives the most heat, burns the longest, and makes the best coals. It was used for warmtn, cooking, and smoking meat. The leftover ashes were saved to make the lye used in homemade soap. Saplings were used in stick and mud chimneys, larger logs were worked into wagon beds and rough furniture, and withes served as rope for hanging meat in the smokehouse. Withes were also strung between rafters for hanging dried fruits and vegetables. Sometimes the bark was split off green and used for bottoming chairs, and often it was chewed like gum.

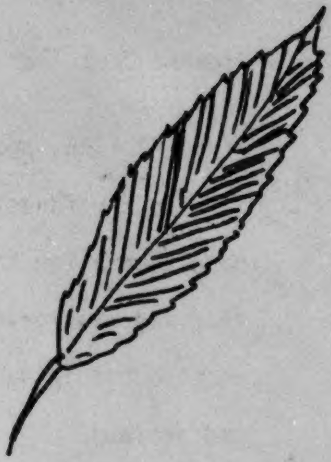
Hickory had to be seasoned for tool handles and wagon pillars, tongues, axles, spokes, and wheel hubs. It was the best materials for wagon parts as it is flexible and will take a great deal of strain before breaking.

inner bark, and its wood made superior pitchfork handles. White ash was second in value to oak, being the best material for tool handles, oars, and for any implement where elasticity and strength were required.

Walnut--A most valuable hardwood, has leaves that are fine-toothed, pointed, smooth above and hairy beneath. There are from fifteen to twenty-three leaves on a black walnut branch and from eleven tonineteen leaves on a white walnut (butternut) branch. Black walnut has a darker bark and its round nut grows in a thick green husk. The butternut spreads more and has lighter, grayer bark and slightly broader, more hairy leaves. Husks from both of these walnuts produce a fine yellow dye. Black walnut was used in making water wheels and as charcoal for gunpowder. Sugar was produced from the sap of the butternut. Walnut is a hard wood that splits fairly easily and works well. Unseasoned it was sometimes used split for fence rails and paneling. Seasoned, it had more uses--fine furniture primarily.



Chestnut--Wild chestnut was very plentiful in the early days before the blight killed it all. It grew very straight, sometimes to four or five feet in diameter, was fairly soft and light, easily split and worked, and lasted forever. In fact, the stumps of huge chestnuts cut fifty years ago still dot the mountain slopes. It was the favorite wood of the old-timers, and it was used for almost everything.



Green chestnut was split into fence rails, puncheon floors, wide planking for doors and inside wall boards, and lathing to cover the cracks between wall longs. Larger pieces were used for the wall logs themselves, sleepers and sills, and plates. Slender poles made good rafters and joists. As the wood didn't rot easily if kept wet, it was also good for floating bridges and as framing for the rock in underground drainage ditches. The bark peeled intact from half a slender pole made a suitable pipe for running water from a spring.

Seasoned chestnut was used for caskets, all kinds of furniture, animal calls, dough boards, and kitchen utensils, and sometimes for double ox yokes.

Pioneer Tools and Their Uses:

(From FOXFIRE, pp. 39-45.)

To the forests in which they settled, our ancestors brought little more than a few tools and a great deal of ingenuity. They had to find ways to convert wood into most of what they needed for survival, and the resulting reverence for and skill with wood was boundless and profound.

Many of the tools used for working wood were themselves made out of wood--as were the handles for most of the others--and they are easily reproduced today. A mallet, for example, was simply a two-foot section out of the limb of a hardwood tree like oak or hickory. While green, two-thirds of the limb was hewn into a handle and then smoothed. It was then set up to cure so that it would not split while being used later.

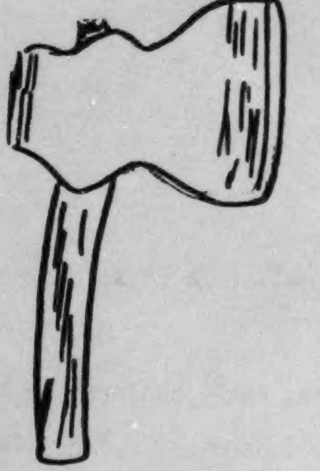
A maul could be made in almost the same way, but on a larger scale. The early builders simply found a white oak sapling with a knob deformity in the trunk. Cutting the trunk just below the knob and as far above it as the length they wanted the handle, they hewed the handle out of the cut section of the trunk using the knob as the head of the tool.

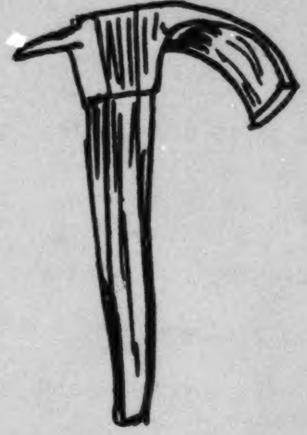
Wooden wedges, or "gluts," were hewn out of eighteen-inch long, four to six-inch thick sections of hardwood limbs.

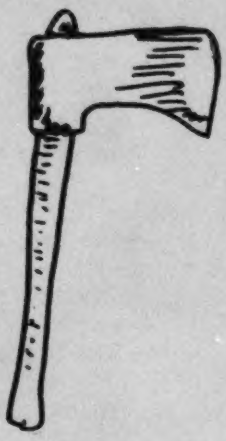
Hewing:

The tools needed are a broadaxe, a foot adze, a "falling" or pole axe, and a chalk box.

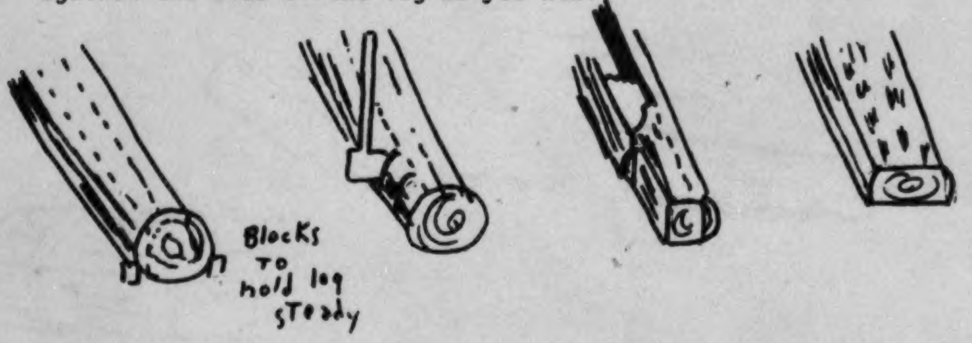
Hewing is the skill needed in order to make support beams and wall logs. By hewing, the rounded sides of a log are made flat.



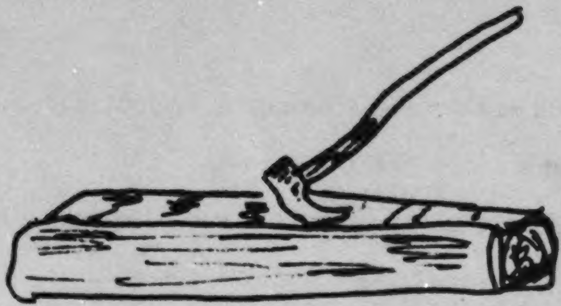




To hew, first "score" the log at two to three-inch intervals with the falling axe. Then, using the broadaxe slice off the chips. This axe has a curved handle to keep you from skinning your knuckles against the side of the log as you hew.


Blocks to hold log steady

If the log is to be hewn on all four sides, hew off two parallel sides first; then roll the log over onto one of the flat sides and repeat the process.

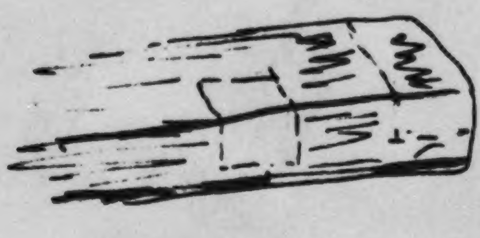


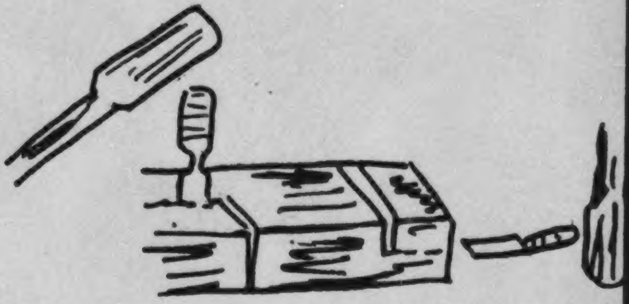
An alternative is to use the foot adze.

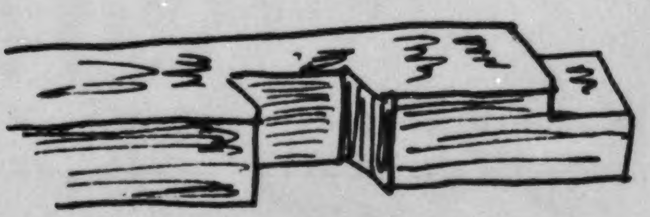
Notching and Jointing:

The tools needed are a falling axe, a mallet, a chisel, a handsaw, a double-bladed axe, a square, and a ruler.

To cut lap joints, mortises, and so one, early builders in this area marked off the joint to be cut using a square and ruler. They then made the necessary cut (s) against the grain with a handsaw, and going with the grain, split out the remainder with a chisel and mallet.



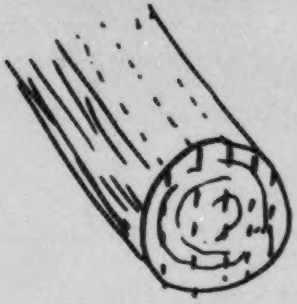


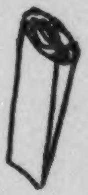


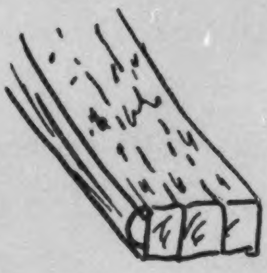
Splitting and Riving:

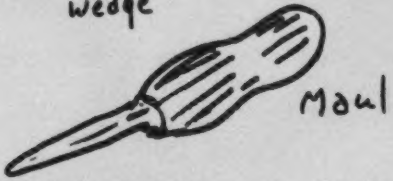
The tools needed are a poleaxe, a go-devil, large wooden wedges, a maul, a froe, and a mallet.

Locust wedges begin the splitting process. With a maul, they are driven deeper and deeper into the trunk until it splits in half.









Logs can also be cut into two-four- or six-foot lengths to be split with a froe and mallet into rough boards for flooring, paneling, lathing, or shingles ("boards").

For shingles to cover the roof or gables, the trunk is cut into two-foot lengths. Then it is split up into "bolts," and the bolts are "rived" into one-half inch thick slices.

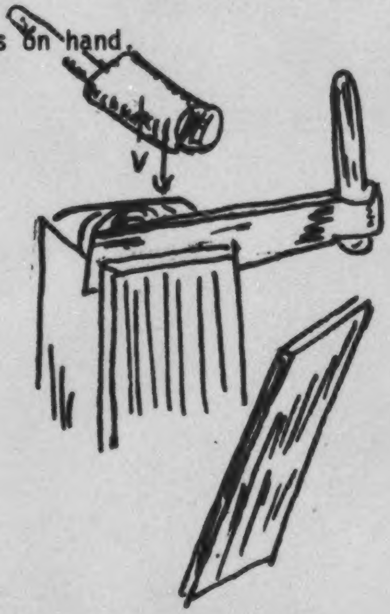
(From A MUSEUM OF EARLY AMERICAN TOOLS, By Eric Sloane, pp. 28-30.)

Wedges and Froes:

A good woodsman would never consider using his axe as a hammer to hit the head of a wedge. That would not only widen the eye but also would finally split the cheeks, finishing off the axe head forever. Yet many paintings of Lincoln show him splitting rails with an axe. Rails were split with wedges. Iron wedges (or wooden gluts) were driven into the wood with a heavy maul or beetle.

To split shingles, laths, staves, and clapboards, a knife-type wedge called a froe or frow was struck with a short maul known as a froe-club. In England the froe is known also as a fromard or rending-axe. The clapboard-maker struck away from himself and twisted the froe handle to split the board with the grain, while striking away with the froe-club.

The froe became obsolete about a centuey ago, when it became customary to saw-cut shingles and laths. Till then, "riving" shingles was a favorite rainy-day woodshed job, every household had several froes on hand.



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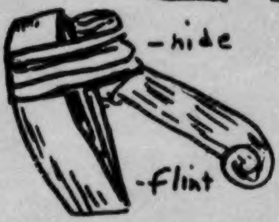
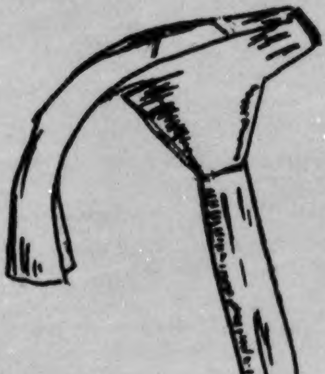
Canoes and Bowls:

The word canoe (canow and canoo in the 1600's) described a hollowed-out log. Until the Indians saw the English hand adze, they used fire to burn out the hollow portion and flint knives and shells to scrape out the burned wood. Then they devised their own adze, using flint instead of metal for the blade. The scoop, or scorp, became refined as the years went by, and, finally, it became a finishing tool.

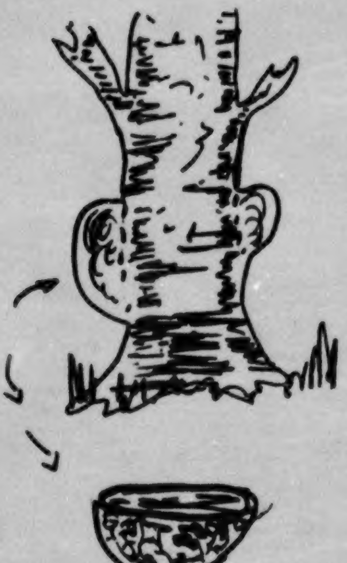
Maple and ash burls (wartlike bumps on tree trunks) were first burned and then scorped out, making the toughest and most durable of all bowls.

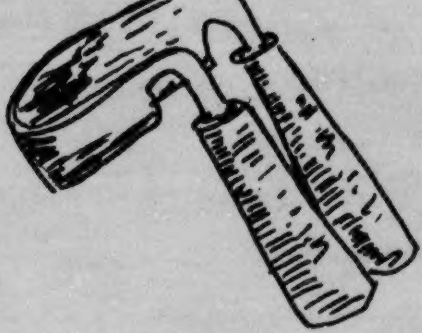
Indian adze





Cooper's Adze





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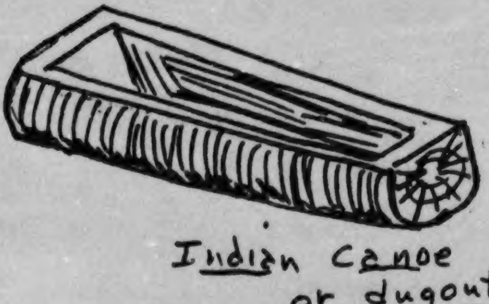


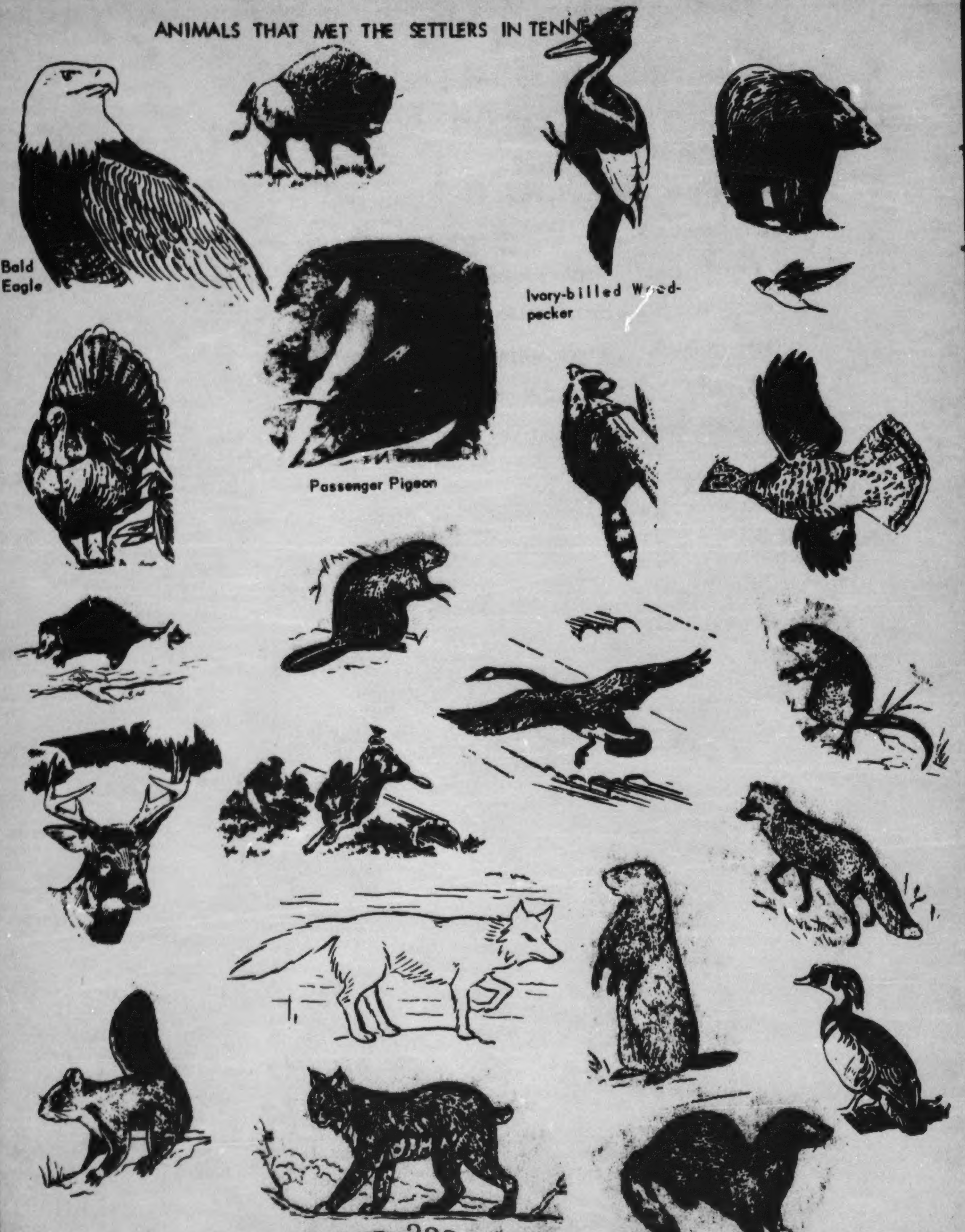
Indian Canoe or dugout

ACTIVITIES FOR SECTION C:

1. Have the students make models of tools using basal wood and foil for metal. Exhibits could be made showing tools used for special activities and how they were used.
2. Have the students try making a log cabin using small sticks and rocks (how to in"Foxfire" book). They could make an exhibit of a typical day's work in a pioneer village with cabin, barn and wood lot. The "people" could be made from corn shucks or clothes pins.
3. Make an exhibit of the types of woods used by early settlers. Gather a leaf and press it. Add a small slab of the tree (a limb slab can be used.) Sand the slab and mount the leaf beside it. Put it in front of pictures showing how that wood was used.
4. Cut slices of limbs of trees. Make a pin for them by sanding and waxing it. Small slabs can also be used as earrings. Mount the pin on a card (for a present) with how pioneers used that kind of wood. In this area Sassafras and Sumac work well for this and both were widely used by pioneers.
5. Draw pictures of people using tools, how they were used and what was made using them.
6. Put together a covered wagon--from a kit or plans. Make miniture tools to go with it, showing what it took to make it.
7. Go see collections of tools at Fort Nashborough. See if you can figure out how they are used.
8. Request a visit from the Outdoor Teachers and the van with the collection of tools. The students will be allowed to handle them.
9. Check the community for a craftsman. Have him (her) speak on using tools. How they are different now.

10. Get an Industrial Art teacher from a local High School to demonstrate how hand tools are used and exhibit some tools. Compare them with early tools.
11. Make a scrapbook of pictures of early tools being used. Write a story about the tools and how they were made.
12. Get some instruction from someone (community, scouts) in using an axe. Have a Woodsman Frolic Day with contests in pioneer skills: Splitting, Firebuilding, Sawing, Chopping.
13. Find someone who can shittle and get instructions for the students. Have them carve simple items and have an exhibit of what they made.
14. Request demonstration of pioneer skills by Historical Landmarks group.
15. Borrow corn sheller or cider press and prepare food for a meal using these tools.

ANIMALS THAT MET THE SETTLERS IN TENN


Bald Eagle
Ivory-billed Woodpecker
Passenger Pigeon

ANIMALS THAT MET THE FIRST SETTLERS

(Adapted from a Book published by Tennessee Ornithological Society)

Two hundred years ago, Tennessee was a vast wilderness. As pioneers came here they discovered a number of animals and birds, many of whom they had not seen before. Most of the settlers were too busy fighting Indians or trying to settle ot note what they saw. Usually the only reference was to the animals they shot to use as food. References to old game trails, salt licks, and buffalo waffows often were the only clues to the wildlife.

The first real naturalist to visit Tennessee was probably Andre Michaux who traveled from South Carolina to Nashville in 1795. He visited for a while and when he left he noted in his journal some of the animals he had seen. Among them were: robins, wolves, elk, beaver, white tail deer, muskrat, and gray squirrels. Some of the large animals, such as buffalo may not have been seen by him but were heard of by the settlers living here.

He traveled up and down the rivers for about a year and in his writings he mentioned many other birds and animals,in addition to the ones listed above he wrote about; ravens, paroquets, sapsuckers, blue goose, raccoon, opposum and otter.

John James Audubon visited this area but did not come into the Nashville area. Most of the animals and birds he drew as having found in Kentucky would also have lived in Tennessee.

The bird of the greatest interest to early settlers would be the wild turkey. They were found all over the state and were excellent food.

Some of the birds that are now extinct or very rare that were found in early Tennessee include the passenger pigeion (giving its name to Pigeon Creek, Pigeon Roost Rd. in Mamphis), the Carolina paroquet, a bright green bird with yellow head and orange markings. These birds were objectionable to the pioneers as they traveled in flocks and destroyed fruits and crops. These birds were killed off by 1880. Another rare and probably extinct bird was the Ivory Billed Woodpecker. It lived in the deep forest, eating insects from under the bark of dead trees. When the lumbering industry and settlers took many of the trees there was not enough food left for this bird.

A few birds that were seen rarely by settlers included the prairie chicken, the Golden and Bald eagle, and the Peregrine Falcon. All of these are very rare in Tennessee today.

The buffalo or Woodland bison were quite common around 1780 particuarly in central Tennessee around the Cumberland River. The great salt lick (located behind the capital building in old "Sulfer Dale") was a meeting place for animals such as buffalo, elk, deer, and other animals. This made it a favorite hunting ground for both Indians and settlers. This was the cause of much of the fighting between the Indians and the settlers, both claiming the lick and the hunting area.

The buffalo not only ate at the salt lick but turned the surrounding area into muddy wallows in order for them to coat their skin with mud, protecting them from gnats and horseflys. Many horses and cattle were lost as a result of these pests. The buffalo were the cheif source of food during the early days of the settlers but the herds were rapidly killed out so about 1800 there were very few left in the area. The importance of the buffalo to the settling of this area has never been stressed enough. They provided the early settlers with food, hides and their trails were the first wilderness roads.

In early times Tennessee had a good population of the Eastern Elk. By 1850, however, only the name--the Elk River remained to show this animal had been here.

Probably the most numerous and most useful animal was the deer. They were common with the herds of elk and buffalo. Panthers and wolves preyed on them and they often sought protection by getting into the buffalo herd. Deerskins were used as money by both the Indians and pioneers. Many of the clothes worn by the settlers were made of buckskin, an awl made from the thorn of a locust tree made the holes for the lacing.

Black bears were both useful and an annoying predator for the settlers. They would make off with pigs and poultry and often turn over the "bee-gums" to get honey.

Other animals, now rare, but quite common in those early times included the gray wolf, the panther, the beaver and the otter. Gray wolves and the panther are no longer seen in Tennessee because of the loss of theri habitat. The otter and beaver have been making a "comeback". The mink was also hunted for its pelt and can still be found in some areas of the state.

As settlements grew the food source and habitat for many of these birds and animals were destroyed. Some moved on westward where they could find a suitable home but many could not adapt and disappeared from our country. Efforts should be made today to not allow this to happen again. The birds and animals of our country are far too important to be allowed to be destroyed by the so called progress. Open lands, woods and parks should be provided in order that our remaining wildlife can find a suitable habitat.

Adapted from OUR NATURAL RESOURCES, "Wildlife And The Balance Of Nature
by Carl W. Buchheister, President Emeritus, National Audubon Society

Some animals, such as rodents, deer, cattle, and certain insects, are strictly plant eaters. Others, such as the raccoon that feasts on wild berries and also catches crayfish in the creek, feed upon both plant and animal matter. Other animals, the ones we call "predators," feed almost entirely on other animals. The fox eats the rabbit that eats the clover. The owl dines on the mouse that eats the grain. This food relationship is called a "food chain."

The intimate relationship between soil, water, plants, and animals in the natural community is what we call the balance of nature. It is a wonderful system that evolved with nature, and that tends to prevent any one organism from increasing in numbers so much as to destroy itself and damage others. In a forest wilderness, wolves and mountain lions keep the deer from multiplying so fast they would destroy the forest and literally eat themselves out of house and home. Farmers have often multiplies their insect and rodent problems by eliminating all the woods, thickets, and fencerows where the natural predators could live.

Why Conserve Wildlife?

Wildlife has significant values in addition to the economic uses to which we put many species. The economic uses are, of course, important. The fisheries of the sea and of our larger rivers and lakes support large commercial enterprises that employ many people and supply high quality protein foods.

Millions of outdoorsmen enjoy hunting and fishing for sport. Catering to sportsmen's needs is a sizeable if diffuse industry. Other millions spend money traveling to parks, wildlife refuges, and other natural areas simply to see, study, and photograph the birds and other wild animals.

While recreation has its commercial aspects, what outdoor recreation does for the person enjoying it has a special, human value that cannot be measured in terms of money.

This brings us to another human aspect: the esthetic value. Man finds beauty in nature that inspired him and enriches his life. Did it ever occur to you how much would be lacking at the seashore if there were no birds, no colorful shells cast upon the beach, no plants or animals in the tidal pool? How somber the forest would seem without warblers and thrushes singing? How drab your own garden, without birds and butterflies?

Then there is the scientific value. Every species, either plant or animal, must be considered a storehouse of undiscovered knowledge of as yet unknown importance in the sciences of biology and ecology. That is why scientists cry in alarm when, through man's ignorance or cupidity, any rare species is threatened by extinction.

The most essential measure in the conservation of wildlife is the preservation (or restoration) of habitat. Wild animals must have a place to feed and rest in comparative safety, to take shelter in extremes of weather, and to rear their young.

We do not need to remove a marsh or stream from the scene in order to destroy it as wildlife habitat. We can do it by polluting it--with city sewage, with factory wastes, with silt washed from eroding farm lands, with poisonous chemicals--and we've done it all too many times.

Careful regulation is also necessary to conserve the kinds of fish and game animals that are harvested by man for commercial purposes, or that are taken for sport and food. The principle is always to leave enough breeding stock in suitable habitats to assure a continuing supply.

We need to establish many more wildlife refuges and nature preserves, and to be alert to protect those we have from encroachments and despoliation. We need small sanctuaries or nature centers in every community where wildlife can be enjoyed, where natural ecology can be studied, and where educational programs for children can be conducted.

We need to prevent all kinds of environmental pollution.

Every person can help also by seeking better conservation laws, and by supporting the government agencies whose task it is to protect wildlife and to regulate the harvest of the kinds that have commercial uses.

Wild plants and animals are a renewable resource of wide significance for commerce, recreation, and natural beauty. They are related in a "web of life" of which man himself is a dependent part. Their conservation requires maintenance of favorable habitats, careful management of kinds that can be harvested or "cropped," and complete protection of some rare species.

Some topics for study and discussion:

1. How can wildlife be increased by improving wildlife habitats?
2. What is a predator? Is there any real difference in the natural role of the ladybug that eats aphids, the songbird that devours insects, and the coyote that catches rabbits?
3. What purposes are served by preserves or sanctuaries where nature is undisturbed?
4. How do wild plants and animals make the countryside, or a city park, more interesting and pleasant?
5. How is wildlife affected by water pollution and by poisonous chemicals in the environment?

ACTIVITIES:

1. Draw a mural showing animals that lived in Tennessee when the early settlers arrived.
2. Write a story telling why you think the animals (birds) became extinct in this area.
3. Make a map showing places where these animals might have lived.
4. Make a paper mache model of the birds and animals that helped the pioneers and indians. Use these to make a 3-D exhibit.
5. Draw a picture showing what the animals (birds) ate and where they made their home.
6. Make some artical from (fake) deerskin. A "skin" story (rawhide made from paper stretched on limbs, telling an Indian picture story about a buffalo kill).
7. Find out what animals and birds still live here that were here when the pioneers came. Write a story about them.
8. Make a scrapbook about these animals (birds) and their habitat.
9. Make a wildlife habitat area on your schoolyard--pile of brush, bird feeder, plant shrubs and trees that squirrels and birds like. (Wildlife Resources Agency has seeds and booklets)
10. Ask local wildlife agency what can be done to bring back some of the birds and animals that once lived here. They can provide a slide show and pictures.

PIONEER FOODS, RECIPES AND REMEDIES

SECTION I: PIONEER FOODS AND RECIPES:

(From TO BE A PIONEER, By Paul C. Burns and Ruth Hines, pp. 55-77)

Pioneer families could not go to a store to buy food. They had to grow or hunt for most of the things they ate.

The pioneer needed to be a good hunter. Hunting furnished meat for the family as well as skins that could be tanned and used for making shoes and other articles of clothing. Deer, bears, rabbits, wild turkeys, ducks and geese, prairie chickens, and other wild animals were hunted and killed for meat and hide. Pigs, sheep, cows, and chickens were raised on the farm. The cows and chickens were not killed for they furnished the pioneer with milke and eggs.

Vegetables such as cabbage, turnips, potatoes, pumpkins, onions, and beans, were raised in the garden. Certain wild plants were eaten as greens.

Wild strawberries, blackberries, grapes, plums, and other fruits were picked. The pioneer gathered nuts in the fall.

Honey, maple sugar, and molasses were used to sweeten food.

One method of locating a bee-tree was to smear the smooth surface of a stump with honey. The bees, attracted by the odor, would come to feast on the sweetness. Laden with honey they would make a beeline for their storehouse. The hunters followed the course of the bees until the bee tree was located. The bees were smoked from their shelter with sulphur, the tree chopped down, and the honey brought home. Bee-trees often were located and marked in summer. Later, when the swarm was dormant, the tree was cut down and carted away. The hunter marked the tree with his initials to insure its protection as his own property against any other claims.

Maple sap was obtained by drilling a hole in each maple tree. A hollow tube made from a branch of an oak tree was put in the hole and a bucket hung upon or below it to catch the sap. When the buckets were nearly filled, they were taken to the cabin to be cooked in a big iron kettle. Here the sap was boiled down to maple syrup. Maple sugar candy and cakes of maple sugar could be made from the syrup.

Sorghum, or "long sweetening," was made at sorghum mills from the stalks of the sorghum plants. The children enjoyed eating the skimmings with a stalk.

Today we have many ways of keeping food from spoiling; freezing, quick canning, dehydrating and others. The pioneers could not do these things in the way we do them, but they did find ways of keeping foods for future use. Some fruits were cooked with a lot of sweetening so they wouldn't spoil as fast. These thick, sweet preserves were put into earthenware jars with covers. Wax was poured around the top to seal out the air. Vinegar and spices were added to foods such as cucumbers and beets. This was called pickling. In some places fruits and begetables were placed in pits dug in the ground. They were covered with straw and dirt to keep them from freezing and could be taken out when needed. Meat was salted or smoked with hickory wood to preserve it. Vension was jerked by drying out thin strips before the fire. This prevented decay. During the winter meat could be put outside where it was cold enough to keep it from spoiling.

Until good roads were built, pioneers were able to get very few supplies from stores. The nearest store might be quite a distance away and such a long journey could not be made often. Salt was usually bought at the store, and sometimes spices and a little white or "store" sugar, which was used only on special occasions.

The foods most familiar to the pioneer family were: baked beans with salt pork and molasses, vinegar pies, dried apple pies, wild turkey, rabbit stew, dandelion greens, sassafras tea, prairie chicken, hominy, beech nuts, pawpaws, persimmons.

If you visited a pioneer home for the day this might be the menu:

Breakfast

Pancakes, sausage, gravy, milk, applesause.

Dinner

Hominy, baked beans, johnny cake, head cheese, dried pumpkin or apple pie, milk.

Supper

Rabbit stew, succotash, ash cake or turkey bread, hasty pudding with maple syrup, sassafras tea or milk.

Corn

Nearly every pioneer carried a supply of cornwith him when he went West. As soon as possible, he cleared and planted his cornfield, for corn was one of his most important crops. The frest young ears were used as a vegetable. The ripe kernels were ground into meal and used to prepare many tasty dishes for the family. The ripe grain also provided food for the chickens, the cow, the pigs, and other farm animals. The dried corn cobs could be used for fuel. The husks were dried and braided into mats for floor coverings. The wife often made her broom out of corn husks tied together with a strip of hide. The dried leaves of the plant were stuffed into a bag to serve as a mattress.

A corn husking party was often held when the dried leaves of the corn needed to be stripped off. The pioneers usually assembled in a large barn which was prepared for the occassion; and after each gentleman had selected a lady partner, the husking began. When a lady found a red ear, she was entitled to a kiss from each gentleman present; if a gentleman found one, he was allowed to kiss every lady present. After the corn was all husked, the floor was cleared, the old violin brought out, and the merry dances began, usually lasting until broad daylight.

Until mills were built, corn had to be ground into meal by hand. A mortar and pestle were often used to grind it. A hole was made in a stump or block of wood about a yard high. This was the mortar. The pestle was a block of wood with a handle. It was cut ot fit the hole in the mortar. Grain was put into the mortar. The pestle was pounded up and down to grind the grain. Some pestles had two handles so two men, one on each side, could work together.

Some of the settlers worked out another way of grinding corn. When the land was cleared for a cabin, a young sapling was left standing near the cabin door and near the stump of a large tree or a large stone slightly hollowed out on top. A heavy block of wood was fastened to the sapling over the hollow in the stump or rock. A long leather cord was fastened to the top or near the top of the sapling. When the cord was pulled, the heavy block of wood came down on corn placed in the hollow of the stump or stone. The block was pulled down on the corn over and over until the corn was crushed fine enough to use in cooking. The thump of the corn grinding could be heard a long way off. Some of the pioneers "talked" with their far away neighbors as they ground their corn.

Handmills were made of two big, round, flat stones. The corn was placed between the stones. The top stone was turned on the bottom one until the grain was ground. Horses were used to turn some of the bigger millstones.

When more people came to the west, mills were built beside a stream. The mills had large water wheels. Running water from the stream outside the mill turned the water sheel. The water wheel was connected withthe top millstone so that the millstone turned with the water wheel. People came from miles around to have their grain ground at the mill. The man who owned the mill was given part of the meal or flour as his pay. The pioneers had a kind of a holiday coming to the mill. News and gossip from the different settlements were exchanged, and sometimes horses were swapped.

Corn meal was used to make many different kinds of bread and other dishes. Among them were:

Ash cake--Corn bread wrapped in cabbage leaves and baked in ashes.

Corn dodger--Corn meal and lard baked in lumps.

Hasty pudding--Corn meal mush; often eaten with milk or gravy or sweetened with maple sugar, honey, or molasses and used for a dessert.

Fried mush--Cold hasty pudding, sliced and fried in a skillet.

Hoe cake--Corn bread baked on the blade of a hoe. The hoe was taken off the handle, cleaned, and set inthe coals.

Johnny cake--Usually made of corn meal, salt, boiling water, and milk. Some people added wheat flour if they had it; others added sugar or eggs. It was baked in an oven over the fireplace or in an iron pot with a cover or on a board in front of the fire.

Cook Some Corn Yourself

Roastin' Ears

Roasting must be done over an open fire. Ask your father or some other adult to help you. Select as many tender ears of fresh corn as needed. Pull back the husks from the ears but do not remove them. Clean all the silk from the ears of corn and then pull the husks back up to cover the ears completely. Soak the corn.in cold water for thirty minutes. Place the ears on a bed of hot coals and cover with more hot coals. Roast them for thirty minutes. Remove the corn from the fire carefully, then remove husks and eat with salt and butter.

Hasty Pudding

3 cups of water
½ teaspoon of salt
½ cup of cornmeal

Put the water and salt in a saucepan. Bring it to a boil. Sprinkle the cornmeal into the boiling water a little at a time. Stir all the time so that it will not get lumpy. Cook for 45 minutes. Serve with milk and syrup.

Corn Pone

Measure one cup of sour milk and pour into a mixing bowl. Add enough corn meal and a little wheat flour until you have a thick batter. Add ½ teaspoon of salt and a tablespoon of melted shortening. Dissolve a teaspoon of soda in a small amount of water and add to the batter. Mix well. Pour into a greased pan and bake at 375 for about 25 minutes, or until golden brown.

Parched Corn

Put some dry field corn kernels in an iron skillet or in a covered iron kettle. Add some salt and butter, Parch over medium heat stirring constantly until golden brown.

Hominy

Put one quart of husked dry white field corn into two quarts of water. Add two tablespoonfuls of baking soda. Boil until the hulls of the grain come off easily. Wash in clear, cold water. Cook the hominy in milk seasoned to taste with butter and salt; or boil in water, and season to taste. It may be eaten with or without milk.

Vinegar

Apple cider and other fruit juices turn into vinegar when a slimy plant called mother of vinegar grows in them. Pioneers made their vinegar by letting cider, "worked preserves," old honey, and other sweets stand in a jar with a piece of mother of vinegar. They brought mother of vinegar with them from the East or got it from a neighbor. Vinegar was used for pickling cucumbers, beets, apples, onions, and some meats. It was used also in vinegar pie, a favorite dessert.

Make Vinegar Pie

Use prepared pie dough for the pie shell, or ask your mother to help you make one.

1 egg, well-beaten
3 tablespoons cider-vinegar
1 teaspoon lemon flavoring
4 tablespoons flour
1 cup sugar
1 cup boiling water
1 baked pie shell

Mix sugar and flour thoroughly together, then add boiling water. Cook five minutes. Add well-beaten egg and cook in top of double boiler two minutes. Add lemon flavoring and vinegar. Pour into baked pie shell.

Sauerkraut

Part of the cabbage grown in the garden was often made into sauerkraut. The cabbage was cut into small pieces on a cabbage cutter--a board with sharp knife like blades on it. The head of cabbage was rubbed back and fourth across the knives until it was all cut up. It was then mixed with salt and put in a big barrel or earthenware jar a layer at a time. Each layer was pressed down with a wooden pestle until brine or salty water came out of it. When all the cabbage was packed in, it was covered with a cloth and a board. A large stone was put on top of the board to keep the cabbage under the brine. The jar or barrel was set in a warm place so that bacteria would grow quickly in the mixture. This bateria made the cabbage ferment. After a few days the brine began to bubble. It did not have a very pleasant odor. The scum that came to the top was skimmed off. The cabbage was left to stand until it got sour. Then it was put in a cold place so the bacteria could not grow as fast. It was now ready to be used. When it was wanted for a meal, the necessary amount was taken out and cooked.

Butter

Cream was used to make butter. Whole milk was put in a shallow pan or dish. When the cream came to the top, it was skimmed off and saved until there was enough to be put in the churn for butter.

There were different kinds of churns. Some were little wooden barrels with handles that could be used to turn them around. Others were little barrels on rockers that could be rocked back and forth. The kind of churn most often used, however, was a tall wooden or crockery jar with a cover that had a hole in the center. The hole was for the dasher. The dasher was a stick abput the size of a broomstick with two little pieces of crossed wood fastened to the bottom. When the dasher was moved up and down through the hole in the cover, it splashed the cream. After a while butter woyld begin to form and float around in the churn. The butter came from the fat in the cream.

When all of the fat had come out of the cream, the dasher was taken out of the churn. The little lumps of butter were scooped out and put into a wooden bowl of very cold water. The butter was washed time and again with cold water and squeezed until all the milk was washed out. Then the butter was salted. It was kneaded with a paddle until the salt was well mixed with the butter.

The butter was next put into a butter mold. The mold was made of wood. It had a loose bottom with a handle. By moving the handle the butter could be pushed out of the mold. The bottom of most butter molds had a picture carved in it--an acorn, a strawberry, or some other familiar object. When the butter came out of the mold, it had a picture on the top. Those who had no butter mold made a smooth, round pat of butter on a plate.

Boys and girls liked to drink the buttermilk that was left in the churn when the butter was taken out.

Butter For You

If you wish to make butter, you must first make a small churn. Use a quart jar with a cover. Make a hole in the center of the cover. Make a dasher of smooth round stick that will go through the hole. Fasten two small flat pieces of wood tothe bottom of the stick.

Put two cups of heavy cream in the jar and then put the cover on. Work the dasher up and down until little lumps of butter appear. When no more butter seems to be forming, take off the cover and scoop out the bits of butter. Place the butter in a dish of cold water and wash out all the milk. Salt the butter and shape it into a smooth pat.

Cottage Cheese

Some pioneers used their extra milk to make cottage cheese. The milk was allowed to stand in a warm place until it soured and curds formed. Then it was put into a cloth bag and hung up until the liquid or whey had all drained out. The curd that was left was put into a dish and salted. This was cottage cheese.

Sometimes the cottage cheese was made into round balls about as big as a child's fist. These were put in a warm place to cure or ripen; that is, to turn yellow and become more firm and sharper tasting. When the cheese had ripened all the way through, it was ready to eat. This was called hand cheese.

Cooked cheese was made by putting cottage cheese into a bowl and letting it stand until it was yellow and smelly. Then it was cooked with eggs and caraway seed and spread on bread to be eaten.

Make Cottage Cheese

Cottage cheese is easy to make. You can do it like this: Let one quart of milk stand in a warm place until it becomes thick and sour. Pour the sour milk into a pan, place on the stove, and heat very slowly until the whey or watery part comes to the top. Pour off the whey. Put the white curd that is left into a cloth bag. Hang it up, and let it drip for about six hours. Then take it out of the bag and put it into a bowl. Add one-half a teaspoon of salt and mix well. The cheese is now ready to serve.

Apples

At first the pioneers had very few apples, but as soon as they settled in a new place they planted apple trees. When the trees grew large enought, there was plenty of the fruit.

There were several ways of using the apples. Pioneer women made apple butter by cooking apples with sugar or honey in a big kettle out of doors. A long woodent paddle with holes in it was used to stir the apple mixture. It was cooked until very thick.

Some pioneers made apple leather. The apples were peeled, sliced, and cooked to a very thick mush. This was spread out in a thin layer on a board or cloth to dry. In winter the dry apple leather was cooked with water.

Many pioneers dried apples. They peeled the apples and cut out the cores. They they sliced the apples crosswise into rings. The rings were put on a string and hung up to dry. Drying took several days. The apples were covered with some kind of netting to keep off insects. When they were dry they were left hanging or were stored away until they were needed. Children liked to eat pieces of dried apple, but most dried apples were cooked with water and used in pies.

Some hard apples were put into a hole in the ground and covered with straw and dirt to keep them from freezing. In winter the fresh apples could be dug out and used as needed.

When apples were scarce and hard to get, the pioneers found that the pumpkin could be used instead in many of the same ways. Pumpkins were used in pies and to make a spread for bread. They were dried or made into pumpkin butter or pumpkin leather to keep them from spoiling.

Preserve Some Apples or Pumpkin

Dried apples may be prepared quite easily. Choose as many nice firm apples as you wish to dry. Take out the cores and slice the apples crosswise into rings about half an inch thick. Put the rings on strings and hang them in a sunny place until the apples are very dry. This may take several days. The apples should be brought inside each night. They should be covered with a piece of netting as they dry. This will keep off insects. Or, you can slice the apples and spread them on a board ot dry instead of cutting them into rings.

Dried pumpkin rings are made in almost the same way. Wash the pumpkin very carefully. Cut it in half crosswise. Take out all the seeds. Cut each half into rings about three-fourths of an inch thick. Put the rings around a pole--an old broomstick is good for this. Find something to support the ends of the pole. You might lay it across the backs of two straight chairs, or you could use two forked sticks. Put the pumpkin in the sun until it is very dry.

To cook your dried apple or pumpkin, soak the pieces in water until they are soft. Cook them until tender in just enought water to cover them. Add as much sugar as you like.

Apple leather is made like this. Wash as many apples as you wish to make into leather. Peel the apples. Cut them into eighths and take out the seeds and cores. Put the apples into a saucepan.

Add water so that it half covers the apples. Cook the apples until they are a very thick mush. Spread the cooked apples on a clean cloth and let dry. The drying will take two or three days.

Pumpkin butter is also easy to make. Wash a pumpkin. Cut it into pieces and peel each piece. Put the pieces into a saucepan. Add enough water to about half cover the pumpkin. Let it cook until it is soft and mushy. Then press it through a colander (sieve) to take out all the lumps. Measure the cooked pumpkin to see how many cups you have. Add one cup of sugar or honey for every two cups of pumpkin. Also add one-fourth of a teaspoon of cinnamon or ginger per cup. Cook the mixture until it is very thick.

(From THE FOXFIRE BOOK, 1972, pp.167-173.)

Brunswick Stew

2 pounds cookd ground beef
1 pound cooked lean ground pork
1 small cooked chicken, chopped
3-4 diced potatoes
1 pint kernel corn
1 cup lima beans
2-3 diced carrots
2-3 chopped onions
1 pint tomatoes or tomato juice
catsup
chile powder
salt
black pepper and red pepper
Worcestershire sauce

The vegetables may be either raw or canned. Mix everything together, and simmer a long time. If you want to can it, put in jars and place them in a boiling water bath for 1½ hours.

Vegetables

Leather Breeches Beans--Sometime during the winter take a string of dried green beans down, remove the thread, and drop them in a pot of scalding water. Then add "a good hunk'a meat" (ham, pork, or the like, depending on your taste) and cook all morning.

Cabbage

1 head cabbage, chopped
4 tablespoons lard
salt and pepper to taste

Put about an inch of water in a large frying pan and bring to a boil. Put all the cabbage and lard in, season, and cover. Simmer for about twenty-five to thirty minutes.

Fried Potatoes--Slice three or four potatoes very thin, like potato chips, put in frying pan with hot grease, and season with salt and pepper. Cover and cook until light brown, turning occasionally.

Okra--Slice the okra about ½ inch thick, roll in meal, salt, and fry in grease until light brown and crispy.

October Beans--The mountain people used these beans as a substitute for soup beans, which don't grow here. They can be eaten fresh when young and tender, but people usually dried them, shelled them, and stored them for later use. To cook, parboil beans for five minutes, using about a quart of water per cup of beans and some salt. Cover and simmer until tender.

Fried Pumpkin/Squash Blossoms--Make a thin batter using an egg, about half a cup of flour, and milk. Dip the blossoms in it, and fry in deep hot grease. Serve as you would any vegetable.

Breads

Corn Pones

1 pint corn meal
½ teaspoon salt
1 teaspoon baking powder
1 tablespoon lard
milk

Mix together meal, powder, and salt, cut in lard, and add enough milk to make a stiff batter. Form into pones with hands (or add some milk and drop from the end of a spoon), and place in a greased pan. Bake in a hot oven for about half an hour.

Corn Cakes

2 cups corn meal
1 kitchen spoon flour
2 eggs
1 teaspoon salt
2 teaspoons baking powder
1 tablespoon melted butter or lard
milk

Beat eggs, add meal, flour, salt, baking powder, and butter. Add enough milk to make a thin batter. Pour out onto a hot griddle and flip to other side when brown. Good with butter and syrup.

Hush Puppies--Mix 1 cup flour, 1 cup corn meal, and a pinch of salt and soda. Add 1 egg and buttermilk until it is the right consistency to hold its shape when rolled into a ball. Mix in 1 medium onion chooped up, roll into balls about an inch to 2 inches across, and drop into a couple inches of hot fat. Let them deep fry until they'r brown and crispy; drain a bit on some paper, and serve hot.

Light Bread

- 1 cake yeast
- 3 teaspoons sugar
- 1 pint warm water
- 2 medium potatoes
- 2 teaspoons salt
- flour

Dissolve the yeast in 1 cup of the water. Cook the potatoes, mash ver fine, and add yeast along with 1 teaspoon salt, 1 teasppon sugar and the rest of the water. Put in a jar and leave in a warm place to rise. Sift flour, and mix it in with the yeast mixture along with 1 more teaspoon salt and 2 more teaspoons sugar. Keep adding flour until it makes a firm dough. Let rise to double, knead, and make into loaves. Let rise for one hour, and then bake at about 350 until it tests done.

Bran Bread--Mix together 1 quart each of bran flour, white flour, and buttermilk. Add 1 cup each of seeded raisins and molasses, and last mix in 1 teaspoon each of baking soda and salt. Put into loaf pans and bake until done.

Rye Bread--Sift together 1 cup of wheat flour, 1 cup rye flour, ½ cup of corn meal, 1 teaspoon salt, and 1 teaspoon baking powder.

Add enough buttermilk to make a firm dough, adding ½ teaspoon of soda per cup of buttermilk. Cut in 3 tablespoons of shortening, mix thoroughly, and roll out to about ½ inch thick. Cut as you would biscuits, place on greased sheet, and bake at 450 degrees for ten to twelve minutes.

Cracklin' Bread--Prepare corn bread by using 2 cups of corn meal, 2 teaspoons of salt, 1 cup of buttermilk. 1 teaspoon of soda, and ½ teaspoon of baking powder. Mix ½ cup of cracklin's into the mixture. If it is too dry use some lukewarm water to make the right consistency for corn bread. Put in oven and cook until brown.

Ash Cakes--Mix up dough for corn bread, and make sure it's thick enough to hold its shape. Clean out a corner of the fireplace, put the "cake" in it, and cover it with a clean cloth. Put hot ashes over the cloth, then put hot coals on top of that. It takes about half an hour.

Molasses Sweet Bread--Sift together 2 cups flour, 2 teaspoons baking powder, ½ teaspoon salt, ¼ teaspoon soda, 2 teaspoons ginger, and 1 teaspoon cinnamon. Add 1/3 cup melted butter, 1 cup molasses (or ½ cup sugar and 2/3 cup molasses), 3/4 cup buttermilk, and 1 egg. Mix well, pour into a loaf pan, and bake at 350 degrees for about fifty minutes.

Old-Fashioned Gingerbread

½ cup sugar
½ cup butter
1 cup molasses
2 cups flour
½ teaspoon soda
1½ teaspoons ginger
½ teaspoon cinnamon
½ cup sour milk
nuts or raisins if desired

Mix all ingredients together, put into a large loaf pan, and bake for about an hour. (This recipe is at least a hundred years old.)

Syrup Bread--Mix up flour, soda, salt, and buttermilk as you would for a plain bread recipe, and instead of using sugar to sweeten it, use homemade syrup. Bake like any other bread.

Cakes

Carrot Pudding Or Cake

2/3 cup sifted flour
1 teaspoon baking powder
3/4 teaspoon baking soda
3/4 teaspoon salt
½ teaspoon cinnamon
¼ teaspoon nutmeg
2/3 cup sugar
2/3 cup currants
2/3 cup raisins
2/3 cup grated raw potatoes

¼ teaspoon ground cloves
1/3 cup milk
1 cup grated raw carrots

Mix and sift ingredients. Add the fruits, stir until well coated, then stir in potatoes, carrots, and milk. Pour into a greased pan and cover with a lid and steam in a large pan of hot water for 2½ hours.

Serve with Carrot Pudding Sauce, made as follows:
Mix 1 cup powdered sugar, 1 large teaspoon vanilla or wine, and the yolks of two eggs. Beat. When ready to serve, add ½ pint cream whipped.

Pumpkin Cake

1½ cups corn oil
2 cups sugar
3 cups flour
2 teaspoons baking powder
1 scant teaspoon soda
2 teaspoons vanilla
4 eggs
2 cups pumpkin
1 cup raisins or fruit cake mix
1 cup chopped nuts
2 teaspoons pumpkin spice
1 teaspoon salt

Mix corn oil, sugar, flour, spice, powder, soda, salt, and pumpkin. Add eggs beaten well. Add vanilla, nuts, and raisins that have been mixed with ½ cup of extra flour. Bake in a loaf pan for about an hour at 400-450 degrees.

Dried Apple Cake--Mix up a regular white or yellow cake recipe, and bake it in four thin layers. Mix 1 pint dried apples with 1 pint of water, and cook until thick and the apples are mashed. Sweeten to taste with syrup and add some spices. Let cool a bit, and spread the mixture between the layers and on top of the cake. You can cover the sides if you want.

Molasses Cookies

1 cup brown sugar
1 egg
1 cup molasses
3/4 cup melted lard or butter
½ cup boiling water
salt to taste

Add enough floor to knead. Roll, cut out, and bake in hot oven.

Pies

Tame Gooseberry Pie--Mix 2 cups of berries with 3/4 cup of sugar, and cook, stirring to mash the berries, until thick. Make some plain biscuit dough, roll out, and cut into 1" wide strips. Pour the berries into a pie plate, lay the strips of dough crosswise on the berries, and bake at about 450 degrees until the crust is done.

Sweet Potato Pie

2 cups sweet potatoes, diced and cooked
2/3 cup molasses
½ teaspoon ginger
½ stick butter
½ cup sweet milk
pinch of salt
biscuit dough
other spices if desired

Mix together all the ingredients except the dough and bring to a boil. Cut rolled dough into cubes and drop into boiling mixture. Put thin slices of dough on top. Put pan in oven and bake until crust is brown.

Blackberry Cobbler

blackberries, enough for 1 pie
sugar to taste
butter, small amount
biscuit dough, enough for several biscuits

Cook the blackberries until they come ot a boil, add as much or little sugar as you want, and then add some butter. Cook until thick. Roll out the dough, cut as for biscuits, and drop into the blackberries. Then roll some dough thin, cut into strips, and place on top of the blackberries. Set the pan in the oven until the crust on top is brown.

Molasses Candy--Combine 1 cup of molasses, 1 cup of water, a few grains of salt. Boil ingredients (do not stir) to hard ball stage. Remove from the fire, and let stand until cool enough to hold in well greases hands. After pulling for some time it will change from brown to a yellowish color. Cut into pieces.

Beverages

Apple Beer--Peel your apples and dry the peelings in the sun or by the stove. Put them in a crock and add enough boiling water to cover them. Cover the crock and let it sit for one or two days, until all the flavor comes out of the peelings. You may add some sugar if you want.

Muscadine Wine

½ bushel muscadine grapes	12½ pounds sugar

Mash the grapes with your hands, put them in a large churn, and add 2½ pounds sugar. Let it work (ferment) for about a week, until it quits.

Strain the mixture to get out the grape skins and impurities. Put back in the churn, add 10 pounds more of sugar. Let it work about eight to ten days until it quits. Makes about 4 gallons.

(From EARLY AMERICAN LIFE, October 1974, pp. 84-85, "Pilgrim Recipes")

Baked Pumpkin

(A recipe the Pilgrims borrowed from the Indians)

1 pumpkin, four or five pounds in size

2 tablespoons honey

2 tablespoons melted butter

2 tablespoons cider

Wash the pumpkin and thoroughly scrub the outer skin. Place it on a cake or pie tin and bake at 350 degrees for an hour and a half.

Remove the pumpkin from the oven and cut a circle, about four inches in diameter, across its top. Set the circle aside. Scoop out the seeds and the stringy pulp on the inside of the pumpkin, and discard. Combine the honey, butter, and cider, spoon this mixture into the pumpkin cavity, replace the top. Return to the oven and bake at 350 degrees for an additional 40 minutes. Serve the pumpkin "whole" at the table, and serve by spooning out the inside meat.

Succotash

Most of us think of succotash as a combination of lima beans and corn, mixed in equal parts, seasoned with salt, pepper, and butter. But the Pilgrims, who learned about succotash from the Indians, used "pea beans" in the making of it, so far as can be determined; the same kind of beans we use in making "New England baked beans" today. Often, they cooked the corn and the beans with a chunk of meat, sometimes adding a chicken to the pot, thus making a hearty meal indeed. They were pioneers in the use of frozen foods, freezing dishes like this in the winter, then chopping off as much as was needed for a meal.

1 lb. pea beans, dried

1 lb. hulled yellow corn (today, you may use the dry pack canned or the frozen variety, for convenience)

3 lbs. chuck roast or corned beef

3 lbs. stewing chicken

Soak the beans according to the package directions, then cook till they are tender. Add the corn when the beans are almost done. If you like, you may stop here and use the mixture as "succotash." Otherwise, boil the beef and the chicken separately, until done, and save the pot liquid. Cut the mat and chicken into chunks. Mix with the beans and peas, add the pot liquid, and cook together over a low heat for about an hour, stirring frequently.

Cornbread Stuffing

1 cornbread, made from a favorite recipe or mix

4 strips bacon, fried crisp, plus the bacon grease

1 finely chopped onion

1 teaspoon sage

Crumble the cornbread in a bowl, crumble the bacon into it, add the onion and sage, and salt andpepper if desired. Add the hot bacon grease, mix well, and use to stuff the turkey.

Cranberry Pie

4 cups cranberries

2 cups water

1 pastry recipe

2 cups sugar

1 tablespoon grated orange rind (optional)

Boil the cranberries and water together for about twenty minutes. Put through a strainer. Add the sugar to the sauce, and cook for five minutes over a low heat, stirring frequently. Although the Pilgrims didn't have oranges, the orange rind makes a nice flavor addition.

Turn the cranberry mixture into a pastry-lined pie tin, cover with lattice strips, and bake at 400 degrees for 10 minutes, then reduce the heat to 350 degrees and bake for approximately twenty minutes more, or until the crust is nicely browned.

SECTION II: WILD FOODS USED BY PIONEERS AND INDIANS:

Wild foods can be gathered in the school yard or vacant lot. Many of the so called weeds are veally vegtables that became wild when brought to this country. Be sure you can reconize these plants before cooking them. Here are some pictures and recipes.

(From COME OUT TO THE GOOD LIFE, p. 9)

"A Wild Green Delicacy With Vitamins Plus"

Water cress is an excellent source of vitamins and minerals. It is especially high in vitamin C plus vitamins A, B, E, and G, as well as calcium, potassium, iron, copper and other life-giving minerals.

For optimum nutritional value eat water cress raw. It is very important, however, when using the plant raw to soak it first in water to which either Clorox or water purification tablets have been added. Rinse in clear water.

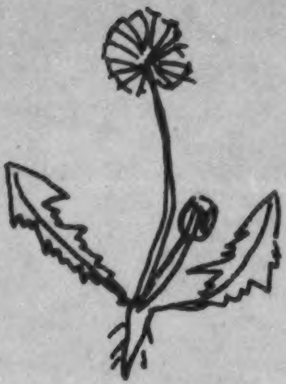
Wilted Water Cress Salad

4 cups of chopped water cress
4 or 5 green onions or wild leeks
2 tablespoons of oil
2-3 tablespoons of lemon juice
Salt

Simmer onions in oil, and pour hot over chopped water cress. Add salt and lemon juice. Mix together until the cress is coated. If the water cress is a bit "peppery" let mixture sit about an hour before serving for a milder salad.

Dandelions, violet leaves, or other wild salad greens can be substituted for water cress.

Dandelion



Food: the leaves as a salad or cooked. The dried roots boiled as coffee or ground as flour.

Medicine: The dried root as a tonic; aids in digestion; a laxative.

Pennsylvania Dutch Wilted Dandelion Greens With Hot Bacon Dressing

Place cleaned dandelion greens in a serving bowl.

In a frying pan cook. . . 6 strips of bacon cut into 1 inch pieces

With a fork or slotted spoon remove cooked bacon and drop onto dandelions.

In a mixing bowl beat until light. . .2 eggs

Add, beating until mixed. . . 1 tablespoon sugar
¼ cup vinegar
1 teaspoon salt
1 cup milk or cream

Add the egg mixture to the bacon fat and stir constantly until thick. Pour this hot mixture over dandelions. Serves 6.

Variation: Substitute leaf lettuce for half of the dandelion.

Dandelion Greens With Vermont Hot Dressing

In a frying pan combine. . . 2 Tablespoons bacon fat
2 Tablespoons water
4 Tablespoons vinegar
1 Tablespoon sugar

Bring the mixture to a boil and pour it over 4 cups of cleaned dandelion leaves that have been chopped into 1-inch pieces. Serve immediately.

Boiled Dandelion Greens

Dandelion greens are also good as a cooked vegetable. Very young leaves can be cooked in the water that clings to them when they are washed. Older dandelions will be more bitter. This bitterness can be removed by covering the washed leaves with cold water, bringing them to a boil, then draining them and repeating the process being sure to start with cold water each time. (Dandelions are different from other greens, which are usually always started in boiling water.)

Boiled dandelions can be served many ways. German farm people add butter and garnish them with hard-boiled eggs. Germans may also add a tablespoon or two of cream. French and Italizn cooks add garlic and olive oil. Some New Englanders add vinegar after the greens have been served. Others put a piece of salt pork in the water when they cook the dandelions.

Many people of Italian origin still use dandelions in a wonderful variety of ways. This recipe, fromthe grandmother of my friend Marco Polo Stufano, makes a complete meal when it is served with spaghetti.

Italian Dandelion Casserole

Mix . . . 1 pound ground beef (or beef and pork mixed)
1 cup bread crumbs
2 Tablespoons chopped parsley
2 Tablespoons finely chopped onion
1 teaspoon salt
1 egg
¼ cup milk

Form 40 to 45 small meatballs about 1 inch in diameter. Brown them in oil. Drain and set aside. Wash about 6 to 8 cups dandelion greens.

In buttered casserole alternate layers of. . .dandelions

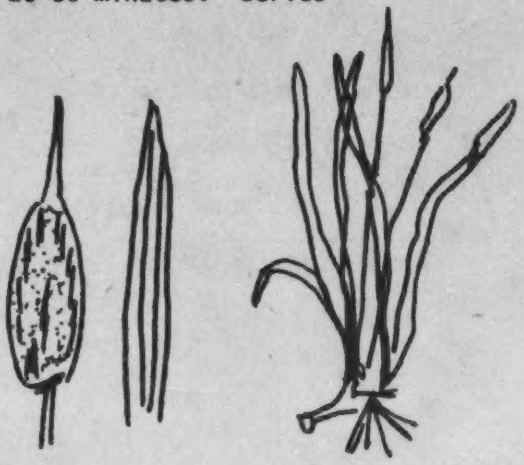
browned meatballs
drained canned tomatoes
Add . . . . 1 cup chicken stock or
bouillon

Season with salt and pepper and simmer 20-30 minutes. Serves 6-8.

Cattail

Food: The spike and new shoots raw or cooked. Yellow pollen added to flour. White parts of stalk raw or cooked. Roots boiled as potatoes or dried and ground as flour.

Medicine: The root as a remedy for upset stomach.



Cattail Flower Casserole

Cover the bottom of a greased 1-quart mold with. . 1 cup bread crumbs
Mix together and pour over the crumbs. . . 1 cup cattail flowers
1 Tablespoon melted butter
1 beaten egg
1 cup milk
Top with a mixture of. . . . . ½ cup bread crumbs
6 Tablespoons grated
sharp cheese
1 Tablespoon melted butter

Bake at 375 degrees for 35-40 minutes. Serves 5-6.

Cattail Flowers Supreme

In a saucepan melt. . . . 2 Tablespoons butter
Stir in until well blended. 3 Tablespoons flour

Remove from heat.

Gradually add . . . . 1 cup chicken stock

Return to heat. Bring to boil. Cook for 3 minutes, stirring constantly.

Add. . . . . .1 slightly beaten egg yolk combined with

. . . . .1/3 cup milk or cream

Cook, stirring constantly, until mixture is thick and smooth.

Fold in . . . . 3 cups cattail flowers

Serve sprinkled with nutmeg or paprika.

Variations: 1. Use a mixture of cattail flowers and milkweed flower buds. 2. Try other combinations of wild vegetables.

Golden Crepes

To . . . . .2 eggs, beaten

add . . . . .1 cup milk

½ teaspoon salt

1/3 cup cattail pollen

2/3 cup flour

Beat until mixed, then cover and set aside for ½ hour or more. Grease a griddle or frying pan. Pour a large cooking spoonful (1/8 cup) of the batter into the pan and tilt it so that the batter spreads and forms a thin coating 6 or more inches in diameter. Cook on both sides. Put a tablespoon of filling in the center. Fold in from the sides. Transfer to a hot platter.

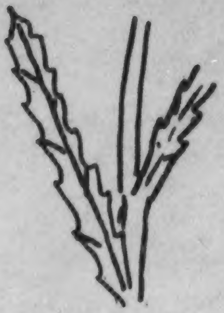
Fillings For Crepes

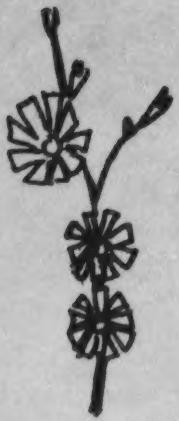
For desserts: any fruit jams or sauces, preferably wild ones. For luncheon dishes: grated cheese, creamed ham, ham and cheese, any creamed vegetable, or, most dramatic of all, cattail flowers supreme.

Chicory:

Food: Tender leaves raw or boiled as greens. Roots dried and ground for coffee. Seeds used as coffee. Roots cooked.

Medicine: Dried root tea for sour stomach.



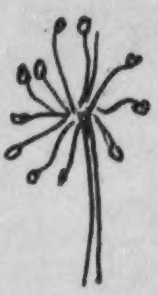


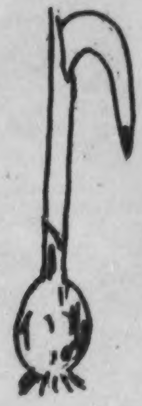
Chicory's roots, when grown in good soil so that they become fat and fleshy, have had a long and successful career as a tasty vegetable served with butter.. And in modern times they, like the dandelion's roots, have been roasted and ground for mixing with coffee.

Wild Onion:

Food: Plant and blubs boiled; bulbs roasted; bulbs in soups. Stems in salads.

Medicine: Juice good for scalds and burns.





Creamed Onions

Onions can be boiled and creamed following the procedure for creamed greens. If the tops are used as well as the bulbs, they should be added only for the last 2 or 3 minutes of cooking.

Fried Onions

Chop onion bulbs and tops. Fry in butter or margarine until tender.

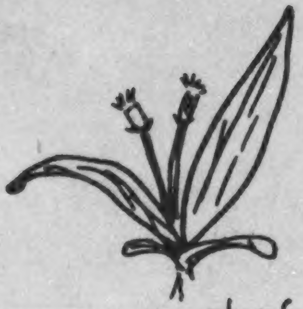
Fried Onions, Version 2

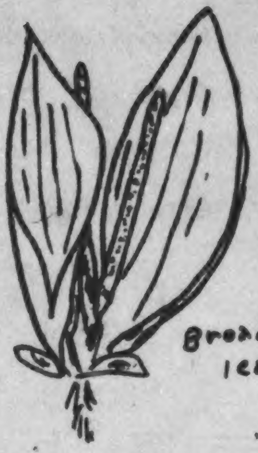
Boil the whole onion bulbs for 5 minutes. Drain. Add the chopped tops. Cook in butter or margarine.

If the onions are strong, the second recipe is the better one to follow.

Plantain:

Food: Leaves cooked.
Rich in vitamin A.
Medicine: Solidifies.
Wound dressing when mashed to a pulp and applied. Relief for external irritation of piles.





Plantain leaves make excellent greens. Fact is, the greener they are, the richer they are in vitamins A and C and in minerals. They are good boiled. Try to see that all these are cooked only until just tender and still slightly crisp.

The simple gimmick with these wild vegetables is to start them in a minimum amount of boiling water and to cook them, covered, as rapidly and briefly as possible. Young plantain and such can be lifted directly from the rinse to the saucepan and cooked without added water.

For two liberal servings of slightly older greens, ½ cup water and ½ teaspoon salt will do the job. When the greens become tougher, a full cup of water may be required. Any of the vitamin-and-mineral rich fluid remaining should be used, as in soups, gravies, sauces, and the like, unless there's some reason against this such as unusual bitterness.

Clover:

Food: Leaves edible.

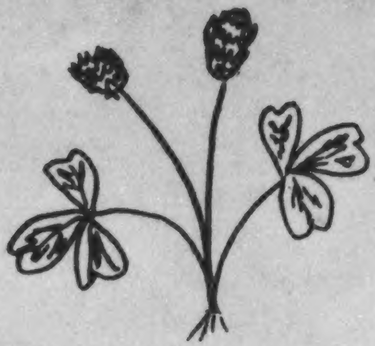
Honey from blooms.

Smoke roots over a fire.

Medicine: Flowers

alter a fever;

prevent spasms.



Bread made from the seeds and dried blossoms of clover has the repetation of being very wholesome and nutritious and of sometimes being a mainstay in times of famine. Being so widely known and plentiful clover is certainly a potential survival food that can be invaluable in an emergency.

The young leaves and flowers are good raw. Some Indians, eating them in quantity, used to dip these first in salted water. The young leaves and blossoms can also be successfully boiled, and they can be steamed as the Indians used to do before drying them for winter use.

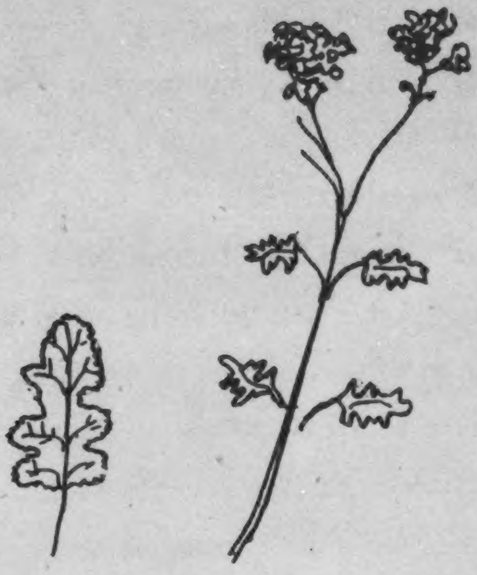
If you're steaming greens melt 4 tablespoons of butter or margarine in a large, heavy frypan over high heat. Stir in 6 loosely packed cups of greens and blossoms, along with 6 tablespoons of water. Cover, except when stirring periodically, and cook for several minutes until the clover is wilted. Salt, pepper, and eat.

The sweetish roots may also be appreciated on occasion, some people liking them best when they have been dipped in oil or in meat drippings.

Clover tea is something you may very well enjoy. Gather the full-grown flowers at a time when they are dry. Then further dry them indoors at ordinary house temperatures, afterwards rubbing them into small particles and sealing them in bottles or jars to hold in the flavor. Use 1 teaspoon of these to each cup of boiling water, brewing either in a teapot or in individual cups, as you would oriental tea.

Mustard:

Food: Young leaves raw.
Young yellow flowers raw.
Entire plant cooked.
Grind seeds and add water for mustard. Seeds mixed with flour for seasoning.
Medicine: Rich in vitamins and minerals. Seed in wine resists poisons. A good poultice. Chewed seed helps a toothache.



One way this pleasantly edible plant can really start the mouth tingling is in a cream of wild green soup--especially when you come in dehydrated from a day of fishing or spring bear hunting and get that first sniff of it, all steaming and savory. To go with 2 cups of chopped or scissored young mustard greens, start slowly heating a quart of milk, not allowing it to boil.

Meanwhile, melt 2 tablespoons of butter, margarine, bacon drippings, or any other edible fat in a saucepan over low heat. Gradually stir in 1½ teaspoons salt, 1/8 teaspoon pepper, and 2 tablesp-ons flour. Add a finely minced small onion. Then pour in the hot milk bit by bit. Cook gently for 5 minutes.

Drop in the greens and, stirring occasionally, continue to heat just below the boiling point until these are just tender. To be at its best, mustard requires more cooking than most greens, something like a half hour. You'll need a lot, too, as it shrinks considerably. When the soup is ready, sprinkle with paprika. Serve at once.

Mustard, whether used in soup or elsewhere, is most agreeable when it first appears. The young stalks are not hard to identify, particularly as older mustard is often standing in the same patch. The slightly peppery young leaves are enjoyable raw. So are the young flowers with their then subtle pungency. The entire young plant goes well cooked with fish and meat.

Later on, the profusion of golden flowers can be capitalized upon to make a broccolilike dish. When you pick these over, it is best to eliminate any of the small upper leaves because of their bitterness. The blossoms boil up quickly in salted water. Bring them to a rapid boil, then let them stand away from the heat, tightly covered, for 5 minutes. Drain, spread with melting butter or margarine, and sprinkle with a little vinegar. Besides being colorful and delicious, this repast is full of vitamins and protein.

The easily gathered seeds of wild mustard, even after it has grown old and tough, are hard to equal for garnishing salads, adding to pickles and such for that extra seasoning, giving a final authority to barbecue sauces, and lending a wisp of zip and zest to stews. Mustard's very name comes from its seeds, being a corruption of must seeds, which harks back to ancient Roman-occupied Britain, where these were processed by saturating them in a solution of grape juice, or must, as it was sometimes called.

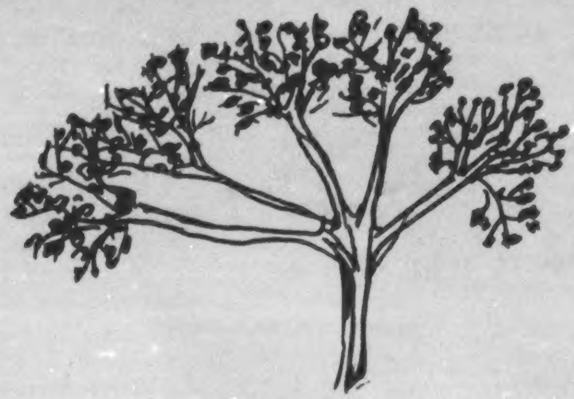
Table mustard can be made by finely grinding wild mustard seeds, between two stones, if you're in camp, or in the family food choopper, if you're at home, and adding enough water or vinegar to make a paste. After that, it's up to you. Commercially prepared condiments oftan contain such additional ingredients as flour, salt, turmeric, and other spices. If you choose to modify your raw mustard with up to an equal bulk of flour, brown this latter slowly and lightly in an oven first to take away the starchy taste. The vinegar may be diluted, depending on its strength, up to half and half with water. Occasionally, the blender likes the added flavor of horseradish. This white-flowered member of the mustard family, with the pungent white roots, likewise grows wild.

Elderberry:

Food: The berry.

The flowers cooked in batter.

Medicine: High in Vitamin C.



Elder Flower Fritters

Dip each small umbel into fritter batter or a pancake batter. Brown lightly in margarine on both sides.

These fritters make good fringer foods at an outdoor party when cooked at the table on a tin-can stove. They can be eaten plain, served with honey or maple syrup, or sprinkled with powdered sugar and served with a wedge of lemon.

They are equally delicious served indoors as a dessert, or as part of the main meal. The smallest-sized umbels or even individual flowers can be added to muffin batter. Small umbels also make a good addition to a tossed salad.

Elder flowers that aren't gathered produce small dark blue to blackish-purple berries. These are extremely easy to gather. There's no stooping to do, and there are no brambles to avoid. Generally, the harvest is abundant and pails fill quickly. Elderberries are another forage food that has been around for a long time.

You can buy elderberry jelly in the grocery store, but why not make you own?

Elderberry Jelly

Pull berries from stems and wash thoroughly. Put in a pan with a small amount of water. Mash to start juices flowing. Cook slowly about 20 minutes, then pour into a cloth-covered colander to drip.

Into another pan cut an equal amount of apples, including skins. Add water just to the level of fruit. Cover pan, bring apples to a boil, then reduce heat and simmer 10-15 minutes. Pour into cloth-covered colander to drip.

Combine 2 cups of the elderberry juice, 2 cups of the apple juice, and 3 cups of sugar in a flat-bottomed pan. Boil until the jelly sheets. Pour into sterilized jars and seal.

Elderberry pie was an early American favoriet, but tarts bake faster and add a festive note.

Elderberry Tarts

In a bowl mix thoroughly. . . 1 cup elderberries
2 teaspoons lemon rind
2 teaspoons orange rind
4 Tablespoons lemon juice
4 Tablespoons orange juice
6 Tablespoons sugar
1 teaspoon tapioca

Set aside.

In another bowl mix to
form crumbs . . . . 6 Tablespoons flour
3 Tablespoons oatmeal
3 Tablespoons wheat germ
1½ Tablespoons margarine
4½ Tablespoons brown sugar

Make pastry and line 12 muffin tins. Spoon the elderberry mixture into the pastry. Top with crumbs. Bake at 350 degrees until pastry is cooked , about 20 minutes. Variation: Use dried berries and add ½ cup water.

If you sample elderberries and do not like their flavor, don't discard them. Instead, wash them carefully and dry them. The peculiar elder odor, which is located in all parts of the plant, evaporates as the berries dry. Their taste also changes, becoming much milder and, for many people, much more pleasant. Once the berries are dried, they can be stored in glass jars and used all winter.

Elderberry-Pineapple Bar Cookies

Drain the juice from a can of crushed pineapple into a saucepan. Add enough water to the juice to make 1 cup.

Add . . . . 1 cup dried elderberries

Bring to a boil and cook 5 minutes.

Add . . . . 1 cup drained pineapple
½ cup sugar
½ cup honey
½ cup lemon juice
1 teaspoon lemon rind

Dook until mixture is thick. Set aside to cook, while you mix crumbs. Use it as a filling in bar cookies.

Sassafras:

Food: Root chips boiled
for tea.

Medicine: Bark of roots,
warm aromatic; stimulant;
alters fevers, promotes skin
perspiration; tonic; promotes
flow of urin.

Sassafras tea, famous for centuries on this continent, where many people still drink it as a spring tonic, can be made by putting a palmful of preferably young roots into a pot with cold water and boiling them until the rich red color that you've learned by experience you like best is reached. Second and third extractions can be made from the same roots.

For drying and storing some of the makings, use just the bark of the young roots. Older roots can be employed, too, but it is best to scrape off the usual hard, rough covering first.

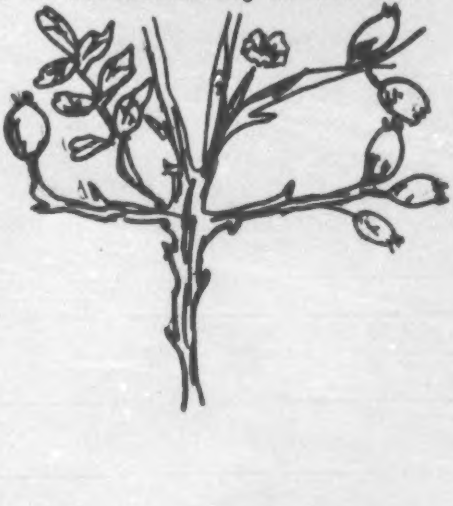
With the help of lemon juice, commercial pectin, and sugar, spicy jellies are made of strong sassafras teas. The dainty green winter buds are delicious, and later the young leaves will add flavor to a salad.

In the South, soups are flavored and thickened by the dried leaves, the veins and hard portions of which are first discarded. If you like the wholesome thickness and smoothness of gumbos, why not try this for yourself? The easiest way to go about it is by drying the young tender stems and leaves, grinding them to a fine powder, sifting this through a sieve to remove the hard parts, and pouring the remainder into a large saltshaker for everyone at the table to use according to his own pleasure.

Wild Rose:

Food: Rose hips are high in vitamin C. Young shoots and leaves steeped for tea.

Medicine: Flowers and hips are a tonic; mild solidifier; dispel flatulency of the stomach; increases flow or urine.



Preparation of Rose Petals

Select freshly opened roses. Grasp the petals with your left hand (if you are right handed), and with your right hand pull off the peduncle. Then with scissors cut straight across the cluster of petals above the white triangle. A few of the stamens will be trapped in the petals, but that doesn't matter. After you have cut as many petals as you need, wash by stirring them vigorously in a bowl of water. Remove by handfuls and squeeze with hands to remove trapped water. Regardless of the rose color or the recipe, this is always the first step.

A Reduced Version of Mrs. Cohen's Rose Petal Jam

Slice . . . . 1 lemon paper-thin
Add . . . . water to cover
Bring to a rolling boil, remove from fire, and drain.
With scissors cut into small pieces . . . . . 2 cups prepared rose petals
Combine in a saucepan with . . . . . . boiled lemon slices
2 cups sugar
2 Tablespoons water

Cook, stirring to prevent scorching, until mixture is thick (about 30 minutes). Pour into 2 sterilized jelly glasses. Seal with paraffin--or keep in refrigerator.

Rose Petal--Honey Butter

Put into blender . . . . ½ cup (¼ pound) butter or margarine
Add . . . . 1 cup prepared rose petals
½ cup honey

Run blender on middle speed until petals are chopped and mixture is uniform. Refrigerate.

Rose Petal--Honey Butter Frosting

Stir . . . . 1 cup sifted confectioners sugar

into . . . . 1½ cups rose petal-honey butter

This is an excellent frosting for white or yellow cakes.

Rose Petal Yogurt

Put in blender . . . . ½ cup prepared rose petals
½ cup honey

Run at medium speed until petals are chopped and mixture is uniform.

Fold mixture into . . . . .2 cups yogurt

Through the centuries people who have had poor fuel supplies have used the sun for cooking. Roses lend themselves well to this kind of preparation.

Sun-baked Rose Petal Jam

Measure . . . . 2 cups firmly packed prepared rose petals
1½ cups granulated sugar

Wash hands. Take a handful of petals and roll them between your palms until petals are completely crushed and hands are moist. Drop petals into a wide mouthed jar. Continue rolling petals and putting them into jar to a depth of 1 inch. Add a ½-inch layer of sugar. Add alternate layers of rolled petals and sugar until all ingredients have been used. Set jar in sun. Stir the mixture twice daily. When sugar is entirely liquefied, the "jam" is ready to be served. "Cooking Time" will vary with the weather conditions.

Variations: 1. Use brown sugar instead of granulated, or equal parts of brown and granulated. 2. Use raw sugar.

Rose Petal Jam Cookies

Cream together. . . . . ½ cup sun-baked rose petal jam
½ cup sugar
½ cup margarine

Beat in . . . . 2 egg yolks

1 Tablespoon milk

Add gradually . . . . 1¼ cups flour

¼ teaspoon salt

¼ teaspoon baking powder

Drop by teaspoonfuls onto greased baking sheet. Bake 8-10 minutes at 375 degrees. Makes approximately 45 cookies.

Variation: Use Mrs. Cohen's Rose Petal Jam.

Rose Petal Cookies

Put in blender . . . . ½ cup margarine

1 cup firmly packed prepared rose petals

2/3 cup honey

1 teaspoon salt

Run at medium speed until mixed.

Empty into bowl and add . . .1 Tablespoon grated lemon rind

½ cup granola

¼ cup toasted wheat germ

Let stand 10 minutes.

In the meantime, mix together. ½ teaspoon baking powder

½ teaspoon baking soda

1¼ cups flour

Stir into rose petal-granola mixture. Drop by teaspoonfuls onto greased cookie sheet. Bake at 350 degrees for 8-10 minutes. Makes approximately 60 cookies.

Sweet and Sour Vegetables

Melt in a frying pan . . . . 1½ Tablespoons margarine

Saute for 8 minutes . . . . 2 cups chopped red cabbage

3 Tablespoons mild onion, chopped

Add . . . . 1½ Tablespoons margarine

1 cup sliced banana
1 cup chopped prepared rose petals
2 Tablespoons sugar
3 Tablespoons sweet pickle vinegar
½ teaspoon salt

Cook 3 minutes. Serves 4-6.

Rose Petal Souffle

Mash . . . . 1 peach
1 ripe banana

to make 2/3 to 3/4 cup of fruit pulp.

Combine. . . . . fruit pulp
1 teaspoon lemon juice
2 Tablespoons honey

Boil for 1 minute.

Remove from heat and stir in. . . 6 tablespoons chopped prepared rose petals

Fold mixture into . . . . 3 stiffly beaten egg whites

Grease 4 custard cups with margarine and sprinkle them with brown sugar so bottoms and sides are coated. Spoon in the mixture. Set the cups in a pan of warm water and bake at 325 degrees for 20-25 minutes.

Extract of Rose Petals

Loosely pack a 1-quart jar with prepared rose petals. Add 3 cups of boiling water. This should fill the jar. If water level is below the top, add more rose petals. If the jar will not hold 3 cups of water,remove surplus petals until it will.

Let the mixture stand overnight. Strain to remove petals. Squeeze the spent petals between hands until all liquid is removed.

If red roses are used, the result will be a beautiful red extract. Pink and yellow roses make a pale-amber extract, which is less dramatic in appearance but may be every bit as good as or better than the more colorful extract. In fact, the best extract I ever made was produced from freshly opened Betty Pryor and New Dawn roses. Betty Pryor is a single pink floribunda; New Dawn is a very pale pink rambler. This extract was so delightfully fragrant that it suggested the idea of rose syrup.

Rose Syrup

Combine equal quantities of rose petal extract and granulated sugar. Boil 5 minutes. Cool and pour into a syrup pot or jar.

This is good on waffles, puddings, pancakes, or ice cream. It can also be used as a flavoring in place of vanilla.

Rose Petal Soup

Combine . . . . 2 Tablespoons cornstarch
½ cup sugar
Stir in . . . . 1 cup water

Boil until mixture is translucent. Remove from heat and immediately
stir in . . . . 3/4 cup honey
Cool and add . . . . 1 Tablespoon lemon juice
1 teaspoon grated lemon rind
3 cups rose petal extract

Stir until thoroughly blended. Serve chilled with a spoonful of sour cream in each bowl. Serves 5-8.

Variations: Garnish with whipped cream, vanilla ice cream, or lemon sherbert.

This soup is especially good because the extract is uncooked, thereby preserving vitamins, and it is most attractive when made with an extract of red roses. Like fruit soups, it can be used both as an appetizer and as a dessert.

Rose Petal Tapioca

In a saucepan combine . . . ¼ cup minute tapioca
3/4 cup sugar
2½ cups rose petal extract

1 Tablespoon lemon juice

Let the mixture stand 5 minutes, then bring it to a rolling boil over medium heat. Remove from stove. Stir after 20 minutes and pour into serving dishes. Serve chilled. Makes 4-5 servings.

Rose Beverage

Combine . . . . 3 cups red rose petal extract
1 cup granulated sugar

Heat only until all sugar is dissolved. Cool. Pour over ice cubes. Drink and enjoy.

Variations: 1. Increase or decrease the amount of sugar to suit your taste. Since both roses and people are variable, it is a good idea to sample the beverage while it is heating. 2. Use honey instead of sugar, or a combination of the two. 3. Add ginger ale or club soda to the rose syrup. 4. Add lemon juice when making the syrup.

Rose Custard

Beat slightly to mix. . . . . 2 eggs
1 cup rose petal extract
¼ teaspoon salt
Scald . . . . 2 cups milk

Pour into egg mixture. Strain into custard cups. Set the cups in a pan of hot water and bake at 350 degrees until knife inserted into custard comes out clean, 35-40 minutes. Makes 6 servings.

Rose Petal Ice Cream in Cranked Freezer

Gradually add . . . . 1 cup rose syrup
to . . . . 4 teaspoons flour
¼ teaspoon salt

When smooth, stir the mixture into top of double boiler containing
. . . . 2 cups scalded milk

Cook, stirring until thick. Slowly beat half of this hot mixture
into . . . . 2 well-beaten eggs

Then beat the egg mixture into the mixture remaining in the top of the double boiler. Boil it 1 minute longer. Remove from heat and chill thoroughly.

Add . . . . 2 cups light cream
1 cup chooped prepared rose petals

Pour mixture into chilled freezer can. Follow instructions on freezer can. Makes 1½ quarts.

Rose Hip Soup

Remove the stem and blossom end from . . . 3 cups rose hips
Wash thoroughly, Add . . . . cold water to cover

Bring to boil, then turn the heat down and simmer 20-25 minutes, until the fruit is soft and the water is colored. Pour the juice into a colander and drain.

To . . . . 2 cups juice
add . . . . ½ cup sugar
and . . . . 2 Tablespoons cornstarch
mixed with . . . . ½ cup water

Return the soup to the stove and cook, while stirring, until the mixture is clear. Cool. Serve garnished with vanilla ice cream, sour cream, whipped cream, or yogurt.

Rose Hip Jelly

To prepare juice, remove the stem and blossom end from. . . 3 cups rose hips
Chop . . . . 1 cup apples

Cover with cold water. Follow the instructions for jelly making. Use 3/4 cup of sugar for each cup of juice.

Rose Hip Jam

Remove the seeds form large rose hips and chop them into small pieces. Cover them with cold water and boil until soft. To each cup of pulp add 2/3 cup of sugar. Cook until thick. Then pour the jam into sterilized jars and seal with paraffin.

Rose Hip Tea

Bring to boil . . . . 16 cups water

Add . . . . 1 cup washed rose hips

Boil 5-8 minutes. Serve hot with honey for sweetening. Variation: Turn the heat down and let the tea simmer for 20 minutes.

Rose Hip Bread

Mix together in a large bowl . . . 2½ cups lukewarm water
1/3 cup honey
1 teaspoon salt
2 packages yeast
1 cup dehydrated milk

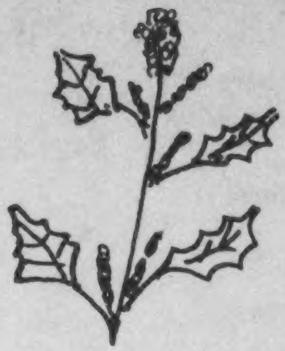
Add . . . . 2 Tablespoons oil
1 cup wheat germ
1 cup chopped rose hips

Mix in with spoon, then with hands. 6½-7 cups unbleached flour, in two additions

When dough pulls away from the sides of the bowl, form into a ball and knead for about 5 minutes. Set aside to rise until double in bulk. Knead. Form dough into 2 loaves andplace them in pans. When again almost double in bulk, bake at 400 degrees 35-40 minutes.

Lamb's Quarter:

Food: Cook young leaves as greens. Seeds eaten raw or boiled as cereal; seeds dried and ground as meal.



Lamb's quarters are sometimes called pigweed, or lamb's quarter pigweed.

The leaves of lamb's quarters are ocvered with short hairs. The hairs are so small that they cannot be seen without a hand lens, but if you rub a leaf between your thumb and fingers, you will notice that it has a mealy consistency. When you wash the leaves, the hairs serve as a repellent, and the waterslides off in slivery drops. Put the clusters of leaves in a deep pan of water and swish them around for several minutes, then drian them in a sieve. Repeat this process several times, and you will have clean fresh leaves, providing you have not gathered them in an area of high lead pollution.

These leaves can be used as part of a tossed salad. You can also cook them in the water that adheres to them, saute them, cream them or use them in any other way that you enjoy greens.

Like spinach, they cook down to a quarter or less of their original bulk, so be sure to gather plenty before you start to cook.

Sautéed Greens

Melt in a frying pan	2 Tablespoons butter or margarine
Add	4 cups greens that have been cleaned washed, and drained but not patted dry

Cook until tender.

Variations: 1. Use bacon fat and garnish with bits of bacon. 2. Garnish with hard-boiled egg.

Creamed Greens

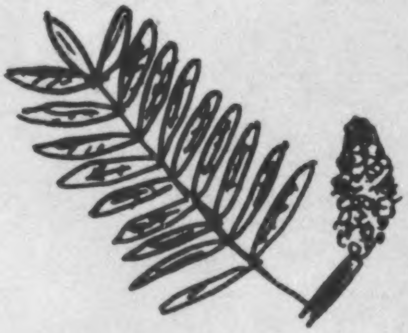
In a saucepan melt	1 Tablespoon butter
Add and stir until completely coated	2 cups boiled, drained greens
Sprinkle over the greens and stir until evenly distributed	1½ teaspoons flour
Add	½ cup milk

Simmer for 3 or 4 minutes, until the milk thickens. Serves 4.

Sumac:

Sumac "lemonade" is just the thing to take the edges of a hard afternoon. Pick over a generous handful of the red berries, drop them into a pan and mash them slightly, cover with boiling water, and allow to steep away from any heat until this is well colored. Then strain through 2 thicknesses of cloth to remove the fine hairs. Sweeten to taste, and serve either hot or cold.

Some Indian tribes liked this acid drink wo much that they dried the small one-seeded berries and stored them for winter use. Many settlers followed suit.



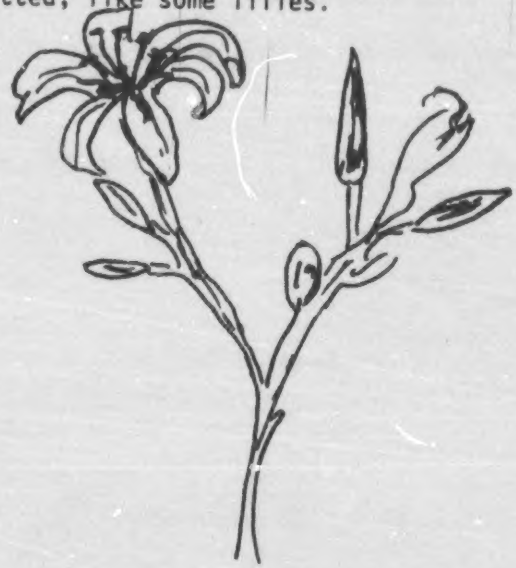
The tiny, tawnily green Flowers grow in loosely stemmed clusters, one sex to a shrub or tree. The male clusters are occasionally ten to twelve inches long. The female blossoms are smaller and extremely dense, producing compact bunches of berries.

The hard red fruits are thickly covered with bright red hairs. These hairs are tart with malic acid, the same flovor-some ingredient found in grapes. Since this is readily soluble in water, the berries should be gathered for beverage purposes before any heavy storms, if possible.

Incidentally, the berries of the poisonous sumacs are white. All the red-fruited species are harmless.

Daylily:

The flowers grow on tall stalks that never have leaves. All daylily leaves arise from a reduced underground stem. They are long, slender, and flexible. The bare flower stalk and the many long, slender, pale green leaves that apparently arise from the ground are important identifying characteristics of the daylily. The leaves appear in early spring and remain green until killed by the frost. Even then they remain as long tan ribbons, protecting the soil. The flowers are different shades of yellow, tan, orange, or deep maroon. They are never spotted, like some lilies.



Four unopened flower buds on this daylily stalk, each at a different stage of development, hold promise of four other days of blooming. One witheres, day-old flower and two fruits, one three days old and another five days old, tell of other days brightened by this plant.

The open flower demonstrates the lily family's plan of three: three petals inside the three petals inside the three sepals, three times two stamens, with a single long slender style running down to the three-parted ovary buried in the flower base.

There is a small green bract where the flower stalk branches, but no leaves. Daylily leaves are long and slender, and all arise from a greatly reduced underground stem at ground level.

Consuelo's Recip

In a saucepan combine . . . 3 cups cooked peeled daylily tubers
1½ cups chicken stock
1 chooped red pepper

Cook until pepper is tender.

Meanwhile dice and fry . . 1 strip bacon

Add bacon and bacon fat to first mixture.

Fold in . . . . 2 ounces grated sharp cheese

Stir until melted. Serves 4-6.

Variation: Instead of daylily tubers use 8 cups dandelion greens. Add the surplus juices to your soup-stock jar.

Fritter Batter

Beat . . . . 1 egg
Stir in . . . . ½ cup milk
Add . . . . ½ cup flour
½ teaspoon baking powder
½ Tablespoon sugar
1 Tablespoon oil

Stir until thoroughly mixed. Split open daylily flowers and dip in batter. Fry like crepes or pancakes in margarine.

Variation: Deep-fat fry in several inches of hot oil.

Summertime Salad

Combine thinly sliced cucumbers, fresh tomato wedges, chopped lettuce, chopped yellow or orange daylilies, and thin red-onion rings. Chill salad and drench with Wave hill dressing just before serving.

Variation: Look around you neighborhood for wild or fresh vegetables that would add color and flavor and add them to the salad.

If the fresh daylily flowers are not harvested in late afternoon, the withered flowers can be picked the next day and used as the Japanese do in soup.

Daylily Flower Soup

Bring to a boil . . . . 4 cups chicken stock
Add . . . . 1 cup daylily flowers, cut into 1 inch pieces
½ cup very thin onion rings
1 Tablespoon mushroom slices

Boil the soup for 5 minutes. Serves 4.

Variation: Season with soy sauce.

The day-old flowers are also good sauteed as a vegetable, alone or in combination with other vegetables, in margarine, butter, or bacon. They can also be combined with fruit.

Sauteed Daylilies with Pecans and Bananas

Saute in margarine for 5 minutes . . . 1 cup chopped flowers
Add . . . . 1 cup chopped ripe bananas
½ cup pecan meats

Cook 5 more minutes. Serve on toast squares.

Variation: Sweeten with honey.

Procedure for Quick Freezing

Wash flowers, and pat them dry with a towel or cloth reserved for this type of use, for orange-toned flowers will leave an orange stain and maroon ones a reddish-blue stain. Arrange flowers in a single layer on a try covered with brown paper and place them in the freezer. When frozen, pack in containers.

Daylily flowers are also dried in Japan and sometimes can be purchased in this form in Japanese food stores when you can easily dry you own or collect those that have been air dried on plants growing in places where the air is not full of dust or pollution such as lead compounds.

Procedure for Drying

If you gather day-old flowers to dry, lay them on brown paper or put them between two window screens. If you cannot find window screens in your hardware store or at a garage sale, you can buy fine wire screening and tack it onto two frames, each about two feet square.

Once dry, the flowers will keep until the next daylily season. You can easily reconstitute them by soaking them in warm water.

Daylily Flower Bread

Pour . . . . 3 cups boiling water

over . . . . 1 cup chopped dried daylily flowers

Let stand until water has cooled to lukewarm (when a drop on your wrist feels neither hot or cold).

Add . . . . 2 packages dried yeast

½ cup honey

3 Tablespoons oil

2 Tablespoons crumbled dried dulce (seaweed)
or 1 teaspoon salt

1 cup granola

1 cup chopped dates

Stir until mixed.

Gradually add . . . . 5-6 cups unbleached flour

Mix the flour first with a spoon and then with your hands. When the dough leaves the sides of the bowl, stop adding flour. Shape into a ball and knead.

Let rise until double in bulk. Knead. Shape into 2 loaves. Let rise until almost double in bulk. Bake at 400 degrees for 30-35 minutes.

Variation: Omit granola and dates. Add 1 egg and increase unbleached flour to 7½-8½ cups.

Daylily Fruits As A Vegetable

Wash 3 and 4 day old fruits thoroughly and slice them crosswise, but do not remove the seeds. These fruits make attractive green trefoils. Add the 1 and 2 day old fruits whole. Boil or saute them about 10 minutes.

Daylily Fruit PicklesI

Gather and wash . . . . 2 cups 3-,4-, and 5-day-old fruits
Dissolve . . . . 2 Tablespoons salt
in . . . . 1 cup water

Soak the fruits in this mixture for 24 hours. Drain and pack them in a clean, hot, sterilized pint jar.

Boil . . . . 1¼ cups vinegar
and . . . . 1 cup sugar

for 2 minutes. Pour this mixture over the fruits. Seal the jar and let it stand 4 weeks before eating the pickles.

Variation: Add a Tablespoon of pickle spice when you boil the sugar and vinegar.

Daylily Fruit Pickle II

Boil in slated water for 15 minutes . . . 2 cups 4-to-6-day-old fruits

Drain.

In another pan boil for 3 minutes . . . . 1 1/3 cups vinegar

2/3 cup sugar

4 teaspoons mixed pickle spices

Add daylily fruits and boil 5 minutes. Put into sterilized pint jar. Seal or use immediately.

All parts of the daylily plant are edible. However, flower buds, tubers, early spring shoots, and the tender growing leaf bases must not be harvested indiscriminately.

Any flower bud harvested removes one future blossom, but there are places where daylilies are so abundant that this can be done without noticeable effect. In these areas the buds can be boiled and buttered as a vegetable, or a small number of buds can be used in a salad or combined with other quick-cooking vegetables.

Tubers can be harvested from early fall until early spring. In big patches plants can be lifted out of various spots without influencing the numbers at all. In smaller patches some tubers can be taken off the plants and the plants can be replanted.

The tubers, of course, are storage areas for the plant. Food stored one year is used the following year to start new plants or to give the old plant an early start. Once the food from the tubers is used, they become flabby and tough, but they often remain on the plant. The old tubers can be distinguished from new ones by their irregular shape, darker color, and spongy condition. When harvesting daylily tubers, be sure to select the fat, smooth, light-colored current crop.

The tubers are difficult to peel raw, but when boiled in their jackets and served hot with butter, they make good patio or picnic food. After boiling, the skin slips off easily.

Pokeweed:

The first wild greens of the spring in many a happy household, pokeweed flourishes in the eastern half of the country except along the Canadian border, west to Texas and south to the tropics. The Indians found it delicious, and some of the first European adventurers on these shores were in such agreement that they took the seeds back to France and southern Europe, where the vegetable became popular. Today pokeweed finds its way into many of our stores as a springtime delicacy. Some devotees like it so well that they even grown it in their cellars.

Also known as pokeberry, poke, scoke, pigeonberry, garget, coakum, and ink berry, this wild vegetable has a huge perennial root often as large as a man's forearm. Fibrous and covered with a thin tannish bark, this can be easily broken to size and planted in garden soil in a deep, flat box. Best are the medium size roots, some three to four inches in diameter, broken or cut into six-inch lengths, dug and replanted indoors after the first heavy freeze of fall. Kept in a dark, warm cellar and regularly watered, these will regularly send up shoots for months. For a family of three, you'll want about a dozen such roots.

You'll want to be able to recognize the full-grown plants, however, as in the spring it is near their dried remains that the tender young shoots will arrow upward. These annuals grow into round stalks, about an inch in diameter, which reach and branch upwards from four to nine feet. The leaves, which are shaped like rounded lances, have stems on one end and points on the other. Scattered, smooth on both sides, and wavy-margined, they are up to about ten inches long.

Both flowers and fruit grow in long clusters on short stems. The numerous, small flowers are a greenish white. The round, ripe berries are a deep purple and are an important source of food for the mourning dove. Their reddish purple juice, as boys sometimes used to confirm in the fall when school classes were first resuming, will serve as an ink for steel pen points.

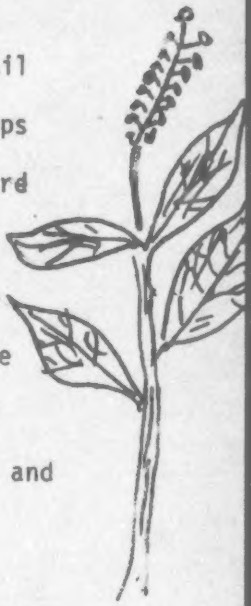
Gather your small, tender pokeweed shoots when they are no more than about eight inches tall. Remove skin and leaves, saving the latter for greens. Simmer the whole stems in a small amount of lighly salted water for 10 minutes or until tender. Serve on hot buttered toast, steaming with sauce.

One sauce whose flavor really brings out the springlike deliciousness of young pokeweed is started by finely chopping 2 slices of a medium-size onion, then tanning the bits in 2 tablespoons of butter or margarine. Then blend in 3 tablespoons flour. Slowly add a cup of milk, stirring vigorously. Mix in a teaspoon of chopped water cress. Salt and pepper to taste, sprinkle with 1/8 teaspoon nutmeg, and simmer gently for 5 minutes, stirring occasionally. Add ¼ cup of heavy cream, bring again to a bubble, and serve.

A tantalizing cheese sauce to touch up the flavor of such pokeweed on toast can be made by slowly melting 2 tablespoons of butter or margarine in a saucepan over moderate heat, not allowing it to brown. Then smoothly stir in an equal volume of flour. Stirring vigorously, gradually add 1¼ cups of milk and bring to a bubble. Season with ¼ teaspoon salt and 1/8 teaspoon pepper. Still stirring, simmer for 5 minutes to take away the raw taste of the flour. Now remove from the heat for several minutes. Add a bit at a time, stirring energetically until each portion has melted before adding more, 3/4 cup of good grated American cheese. Return to low heat but do not allow to boil. Spoon over each serving, dust with paprika and with parsley flakes, and see what everyone's idea is for vegetables the next day.

Pokeweed is also good with eggs. For this dish, skin the shoots but leave on the little unfurled leaves at the top. Wash well. Then boil whole for 8 minutes in salted water until nearly tender. Drain, saving ¼ cup of the fluid. Mix this liquid with 3 beaten eggs, 3 tablespoons salad oil, a halved clove of garlic, and salt and pepper to taste. Add to the pokeweed and, stirring occasionally, cook about 2 minutes or until the latter is ready for the table. Remove the garlic and serve.

For a rich, aromatic soup, simmer 2 cups of pokeweed shoots until soft and then put either through a sieve or the blender. Bring 2 cups of milk to a bubble along with a halved clove of garlic. Then discard the garlic and add the pureed vegetable. Mix 3 tablespoons flour smoothly with a small amount of cold water. Stir that, along with 3 tablespoons of butter or margarine, into the soup. Season to taste with salt and pepper. Bring again, to a bubble, add a tablespoon of chopped water cress and a cup of heavy cream, sprinkle with paprika, and serve steaming.



Simmer until tender in a minimum amount of salted water enough young pokeweed for four. In the meantime, be preparing a white sauce by melting ½ stick of butter or margarine in a saucepan, smoothly stirring in ¼ cup flour, and then, still stirring, adding slowly 2 cups milk. Season to taste with salt and pepper. Stir in 2 tablespoons of finely diced green pepper. Bring to a simmer.

Also be simmering 4 eggs, completely covered with water, for 8 to 10 minutes depending on their size. Then remove them form the heat and plunge them into cold water. Crack the shells slightly before the eggs cool, so that peeling will be easier. Slice.

Spread a base of pokeweed over the bottom of a well-greased casserole. Cover with white sauce, then with sliced egg. Repeat until all the ingredients are used. Top with ½ cup of buttered white bread crumbs. Bake in a moderate 325 degree oven for half an hour. Serve hot. Just a whiff of this will have your customeers waiting eagerly

Salsify:

Growing two and three feet high, salsify is a tall perennial with a primary root that extends vertically downward. This becomes too pithy for use once the tall, leafy flowering stem develops the second year, producing either yellow or purple blooms not unlike large dandelion blossoms.

Like dandelions, the leaves exude a milky juice when scraped or broken. They resemble wide blades of grass. Salsify is so good that the roots are grown commercially both on this continent and in Europe, the only difference between them and the wild variety being that the latter are usually smaller.

Salsify roots can be a treat. Scrub them. Then scrape them. If you are preparing them beforehand, keep them in cold water along with a tablespoon of vinegar to prevent their discoloring. When ready to use, cut into half-inch slices. Bring to a simmer in lightly salted water, in a covered saucepan, and cook until a table fork will easily penetrate the center of a test slab. Drain, salt and pepper to taste, and serve with melting butter or margarine.

Salsify cooked this way is also tasty with white sauce. A good one for this purpose can be made by melting 2 tablespoons of butter or margarine in a saucepan over moderate heat. Saute 2 slices of onion briefly in this without letting either the grease or the vegetable brown. Then blend in 2 tablespoons of flour. Still stirring, slowly add a cup of milk and simmer for 5 minutes. Season to taste with salt and pepper. Then strain and serve. Incidentally, cold boiled salsify can be reheated in such a sauce.

Cold boiled salsify can also be very satisfactorily sauteed in a liberal amount of butter, margarine, or salad oil. Turn the pieces until they are well browned on both sides. Then season them with salt and pepper. If you prefer, first roll them well in seasoned flour instead of salting and peppering them later.

Dice 2 cups of scrubbed and scraped salsify. Drop the bits, along with a cup of light cream, into the top of a double boiler over boiling water. Season with salt and, in this case particularly,, preferably with freshly ground black pepper. This salsify, stirred about every 15 minutes, will take about 2 hours to become tender. Keep hot until ready to serve.

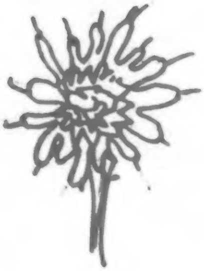
French-fried salsify goes well with steak. Scrub and scrape enough roots for four. Then cut each lengthwise as you would potatoes. Simmer in salted water until nearly tender. Drain and chill.

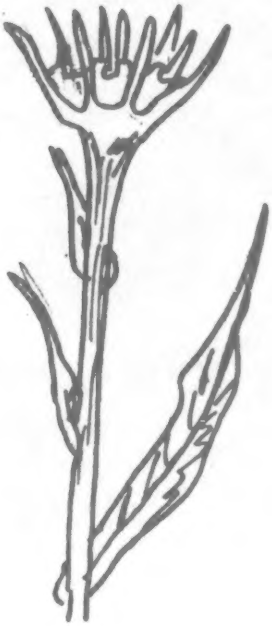
In the meantime, beat 2 eggs with ½ cup of light cream. Season a cup of flour with salt and pepper. Dredge the salsify in the flour. Dip in the liquid. Then roll in white bread crumbs, pressing on all that you can. Melt 2 sticks of butter or margarine in a shallow frypan. As soon as it starts to color, put in the salsify so that each piece is separate. Fry, turning, until golden. Serve sizzling.

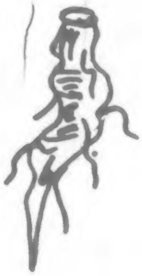
Salsify is also good sugared. Again scrub, scrape, and slice lengthwise enough of the roots for four. Simmer in salted water until nearly tender. In the meantime, mix a tablespoon of sugar with ¼ teaspoon of salt and 1/8 teaspoons each of cinnamon, pepper, nutmeg, and mace. Melt a stick of butter or margarine. Have ¼ cup of flour ready. Roll each piece in the sugar mixture. Then dip into the fat. Dredge with flour. Sprinkle with sugar. Fry in 2 sticks of butter or margarine, turning until golden.

The leaves are well worth eating when you catch them young. Wash a quart of greens, dry them thoroughly with a towel, tear into bite-size segments, and pile in a salad bowl that has been rubbed with a halved clove of garlic.

Fry 4 diced slices of bacon, starting as always with a cold frypan and tilting the accumulating grease to one side. When the bits are brown, remove them. Add to the frypan ½ cup cider vinegar, a teaspoon sugar, a teaspoon diced onion, ½ teaspoon salt, and 1/8 teaspoon pepper. Simmer over low heat for 3 minutes. Then pour over the greens and toss thoroughly. Garnish with the bacon, 2 sliced hard-cooked eggs, and a tablespoon of chopped water cress. Serve immediately.

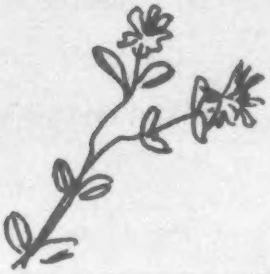






Chickweed:

Food: Sparingly in salads.
Boiled as a green.
Medicine: Bruised herb
taken externally good for
swellings.



Common chickweed is a low, sprawling plant with weak and brittle stems up to about a foot long. Leaves grow in opposite pairs on numerous slender branches. These leaves, which are smoothly oval and rather sharply pointed, are attached directly to the upper parts of the branches but grow from hairy stems along their lower portions.

The small white flowers, clustering at the leafy ends of the branches or stemming from where other leaves meet the branches, have five petals that are so deeply cleft that at first glance they may seem to be ten narrow ones. These develop into papery capsules that are filled with tiny seeds that some people gather for their appreciative canaries.

There's nothing fancy about common chickweed, but it is an abundant green that boils up wholesomely in a little salted water and, topped with an extra amount of butter or margarine, has none of the disagreeable taste that many people find in spinach. If only the top stems and leaves are used, these will become tender in a very short time. Use vinegar, chopped bacon, or both to pep up the delicate taste when guest find it a little too bland. Or, when you can, mix common chickweed half and half with dandelions, mustard or water cress.

Sauteed Greens

Melt in a frying pan	2 Tablespoons butter or margarine
Add	4 cups greens that have been cleaned, washed, and drained but not patted dry

Cook until tender. For chickweed, cooking time is about 3 minutes.

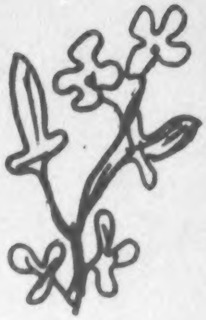
Variations: 1. Use bacon fat and garnish with bits of bacon.

2. Garnish with hard-boiled egg.

Sorrel:

Sorrels of the genus Oxalis have cloverlike leaves with three heart-shaped leaflets and attractive white, pink, lavender, or yellow flowers. Like the sorrels it has a delightful sour taste.

Sour grass is one of the common names for both of these plants. However, the sour flavor in Oxalis comes from oxalic acid, which is harmful if eaten in quantities.



Sorrel Soup

Melt in a saucepan . . . . 2 Tablespoons butter
Add . . . . 2 cups cleaned sorrel leaves
Stir for 2 minutes. Add . . . . 4 cups chicken broth

Bring to a boil, turn heat down and simmer for 3 minutes. Pour the hot soup over 2 well-beaten egg yolks, stirring constantly. Serve garnished with croutons.

Variation: Use beef bouillon (either canned bouillon or bouillon made by dissolving cubes), instead of chicken broth.

Mrs. Rorer's Pureed Sorrel

Boil about 5 minutes . . . . 2 quarts sorrel
in . . . . 2 cups salted water

Drain. Puree the sorrel by putting it through a sieve or using a blender.

Return to stove in . . . . ½ cup veal or chicken stock
Heat thoroughly and add . . . . 1 Tablespoon butter

Sorrel Cream Soup

Melt . . . . 3 Tablespoons butter
Add . . . . 2 cups sorrel

Cook 2 minutes.

Add . . . . 3 Tablespoons flour

Stir until evenly distributed.

Add . . . . 3 cups milk
½ teaspoon salt

Heat for 5 minutes, stirring to prevent burning. Just before serving stir in 1 cup cream and sprinkle with paprika. Serves 4-5.

Luncheon Scrambled Eggs

Wash, chop, and set aside. ½ cup rose petals
2 sprigs parsley
8 sprigs chickweed
6 sorrel leaves
4 chive flowers

Slightly beat . . . . . . .6 eggs
with . . . . .6 Tablespoons milk
Add . . . . .salt and pepper

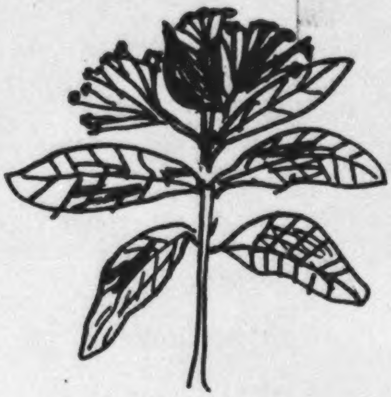
Pour into frying pan containing 2 tablespoons melted margarine

Just before the eggs are set, sprinkle the chopped flowers and greens over them.

Variations are endless: Try daylilies, a mixture of other greens, or violet leaves.

Milkweed:

Common milkweed is a perennial that comes up from the same root year after year. A mature plant may have a dozen or so flower clusters, each composed of twenty, thirty, or more flowers. Early in the season the buds in a cluster are small, short-stemmed, and closely packed, sothat a cluster looks like a woolly ball about an inch in diameter. Later each flower bud looks like a dull green garden pea on a long peduncle.



Freshly opened flowers, which have been thoroughly washed to remove all dust, make an excellent addition to pancakes, fritters, or muffins. They may also be used as a vegetable.

Daylily-Milkweed Saute

Cut 3 strips of bacon into small pieces. Fry. Remove bacon. Add 1 cup chopped day-old daylily flowers and 1 cup milkweed flowers. Saute in bacon fat. Serve garnished with bacon bits.

Green Apple Chutney

In a deep saucepan combine . . . . . 1½ cups chooped onions
2½ cups diced green apple
½ cups sliced dried or fresh mushrooms
1 cup vinegar
1 cup honey
½ cup black raspberries

½ cup freshly opened milkweed flowers
grated rind of 1 orange
1 Tablespoon pickle spice
½ teaspoon curry powder

Bring to a boil. Turn heat down and simmer until mixture thickens, stirring frequently to prevent scorching. Pour into small sterilized jars. Seal with paraffin.

Milkweed Flower Buds with Noodles

In a saucepan combine . . . . . 2 cups chicken broth
2 cups noodles
1 cup milkweed buds
1 Tablespoon chopped onion

Cook until noodles are soft.

SECTION III: REMEDIES

(From PIONEER COMFORTS AND KITCHEN REMEDIES, By Ferne Shelton)

Long before Colonists came to America, Old World medicine had been based on herbs and an underlying belief in magic and witchcraft. From the first, settlers were able to recognize and use many coastal plants. By the time Pioneers pushed inland and climbed the mountains they found that the Appalachians offered the greatest variety of plants known to man.

With the challenging hazards of unopened trails, unknown rivers, and untamed forests as a test for his courage and strength, many a Pioneer arrived at his homesite withlittle more than a gun, a few tools, a broken-down horsecart, and "what he had in his head."

He was dependent on fields, woods, adn gardens for food, medicine, and comforts. Isolated as he often was, knowing about plants and the ways of Nature meant survival or defeat, because his cry for help might have been answered only by a wolf's lonely howl.

While modern medicine is another of the blessings which came during the last Century, much research is still being done on medieval herb lore. However, the old-timey remedies listed here are neither suggested nor recommended.

Rather, it is hoped this brief list will serve you as a further introduction to common plants and kindle a curiosity to learn more about them. There are hundreds of well known herbs and field plants.

Coughs and Colds

Pioneer cabins were often damp, windowless and built with a dirt floor. Sure to be needed before the winter ended, herbs ("yarbs") were collected and hung on the walls and rafters within easy reach. Evidently ther was no "sure cure" for a cold, but the long list of remedies seem to prove that the search was on.

Remedy Used	For
Mustard plaster	Bronchitis; coughs
Cooked Onions (poultice)	Bronchitis; cold
Brewed Onions and Sulphur	Bronchitis; coughs
Kerosene (on cloth) to chest	Bronchitis
Ground Ivy tea	Croup
Jimson Weed (smoked in pipe)	Asthma
Pennyroyal tea	Pneumonia
Boneset tea	Coughs; consumption
Peach tree leaves, bark (poultice)	Bronchitis
Sassafras tea	Bronchitis; tonic
Flax-tea of tops and leaves	Bronchitis
Skunk Cabbage tea	Bronchitis; (Indian)
Saw Palmetto (dried berries) tea	Cold
Red Cedar-nuts, leaves, and twigs boiled	Inhaled for bronchitis
Basil tea (hot)	Bronchitis
Smooth Sumac-leaves smoked	Asthma
Wild Clover tea (of tops)	Whooping cough
Honey and Alum mixture	Sore throats; hoarseness
Mullein tea	Colds
Catnip tea	Colds; nerves, etc.
Cocklebur (leaves and root) tea	Coughs; sore throat
Goldenrod tea (leaves) ("Blue Mountain tea")	Coughs; tonic
Catnip-dry stalks and leaves smoked	Catarrh
Marigold tea	Colds
Molasses and sulphur (equal parts)	Colds; spring tonic

Remedy Used	For
Flaxseed tea, honey, lemon juice, water	Whooping Cough mixture
Wild Cherry bark (tea)	Coughs; colds

Gargles

Strong sage tea (honey and vinegar added)	Coughs
Persimmon (bark and leaves boiled, strained with sage leaves added)	Sore throat; voice
Honey, vinegar, sage leaves--boiled	Sore throat
Slippery Elm tea (boiled)	Soothing throats
Catnip tea (with honey)	Soothing throats
Plain Flaxseed tea	Dry throat
Yellow Root (boiled)	Sore throat
Quince Seeds (boiled in water)	Soothing gargle;swallow
Black Cohosh root(boiled)	Sore throat
Mint and thyme (steeped in alcohol)	Mouthwash; throat
Calamus root (chewed)	To clear throat
Chamomile tea (of flower)	Sore throat
Mint tea	Mouthwash; gargle

For coughs, they put a hot flannel cloth to the chest, after rubbing with salves of: Camphor; Arbor-Vitae; Pines; Cedars; etc.

To "break up" a fever and induce perspiration, they used hot teas of: Willow tree (leaves and bark); Sage; Aspen (leaves); Dogwood (leaves and bark); Tulip tree (roots and bark) etc.

Muscular Aches and Pains

Remedy	Used	For
Witch Grass ("Quack")	Tea, of roots	Rheumatism
Star Grass roots	(In Alcohol) Sip	Rheumatism
Garlic (fresh roots)	Tea	Rheumatism
Burdock (Roots, seeds)	Tea	Rheumatism
Sweet Birch	Roots, bark	Massage
Waxflower (Ratsbane)	Tea, of leaves	Rheumatism
Chicory	Tea, of leaves	Rheu; stomach
Balm of Gilead sap	Buds boiled in oil	Pain; salves
Black Birch	Sap (in Salve)	Rheu; Massage
White Walnut Bark	Boiled, crushed	Apply to sore joints
Oil of Cedar	With alcohol	Massage; pain
Pine	Sap and bark-oil	Massage; stiffness
Quaking Aspen	Tea, of bark	Muscle pain
Hot salt water	Compresses/soaking	Bruises; sprains
Vinegar	Hot or cold	Massage; pain;
	In foot bath	strains; Sprained ankle
Castor Oil	In alcohol (with heat)	Massage; stiff joints
Sassafras	Tea (roots and bark)	Rheu; Gen. tonic
	Oil of Sassafras	Massage; pain
Soapwort	Tea, of roots	Rheumatism; gout
	Externally	Boils; skin sores
Mud	Packs	Curing sprains
Heat	Packs	Muscle pain

Digestive Disorders

Around 1800, the standard procedures for doctoring most illnesses were "purging, vomiting, and bleeding." George Washington's physician and others of his time prescribed the treatment freely, since little was known about germs, Anatomy, or Chemistry. In the mountains, trained doctors were scarce and mid-wives--when one was available--took care of the sick. She walked or rode horseback when called to deliver a baby of "helpout" in other ways, and carried her precious bag of herbs and concoctions with her. Since "store medicine" was not easily located and midwives were not always near, every homemaker took pride in her own knowledge and collection of "yarbs."

Home methods on the frontier were fairly gentle but, from seacoast to mountain top, a tea could be brewed for nearly every illness imaginable. If it always seemed to cure. . . perhaps the imagination helped.

Along with their special ceremonies, chanting, magic rituals and the 59 valuable drugs they introduced to Medical Science, the Indians also recommended the vomiting "cure" and used Scorched Holly Leaves tea, Cucumber Vine tea, Butterfly Weed tea, and Iris (leaves) tea (poison when green) to induce it.

Settlers used Fennel tea, Peppermint tea, Ginger tea, Catnip tea, Rut tea for colic and found it helpful. Chewing the raw root of Sweet Flag (Calamus) was thought to cure "stomach rumbling."

Many plants seem to have various uses (sometimes contradictory) depending upon whether served hot or cold, raw or dried. And without Chemistry knowledge, how did early users recognize the value of roots or bark, when the same plant's leaves might be poisonous? By trial and error, observation, trusting the healing instinct of animals as they grubbed for certain plants when seeking special help. . .and Faith.

Plant	Used	For
Blackberry roots	Boiled tea	Checking secretions
Blackberry juice	Brandy and wine	Diarrhea
Boxwood leaves	Tea	Constipation
Chamomile (leaves)	Tea	Appetite; tonic
Iris (dried root)	Tea	Constipation
Snakeroot	Tea	Aiding digestion
Sassafras (bark and roots)	Tea	Blood tonic
Jerusalem Artichoke	Raw (eaten)	Stimulating body
Buckthorn tree	Tea, of bark	Constipation
Sweet Fern	Tea, of plant	Diarrhea
May Apple	Tea (bark, root)	Constipation
Butter and Eggs	Tea, of plant	Constipation
Hops Vine	Tea	Appetite; to quieten nerves; relieve pain
(Pillow of dried Hops leaves)		Inducing sleep
Burdock	Tea	Purifying blood
Clematis leaves	Tea	Intestinal spasms
Indian corn	Boiled meal	Intestinal spasms
Wild Verbena	Tea	Cramps
Wine (of fruits)	With meals	Aid to digestion
Southern White Cedar	Tea	Stomach
Fig	Fruit	Laxative
Sourwood	Raw leaves	Quenching thirst
Barberry (Root and bark)	Tea	Tonic; purgative
Okra	Cooked	Soothing stomach
Psyllium	Seed	Constipation

Plant	Used	For
Ginseng (root)	Tea	Tonic; strength; love
Vinegar (in water)	As drink	Colic; aid to digestion
Cherry tree (bark)	Tea	Cholera
Iceland Moss (plant)	With milk	Tonic

As laxatives, they used hot teas of: Boneset; Slippery Elm Bark; Sycamore tree bark; Holly berries; Butternut bark; etc.

For dysentery, teas were of: Wild Raspberry bark; Red Oak root bark; Geranium (whole plant) and others.

As tonics, teas of: Goldenseal root; Black Haw root; Dandelion root; St. John's Wort; Brier Hips; Curled Mint; Gentian; etc.

Sweet Flag (Calamus) tea, of dried roots, was used for upset stomach and as an aid. When ground or powdered, it was used for its sweet odor in sachets, etc.

Wounds and Skin Troubles

The Indians were more successful in their treatment of wounds, and the pioneers learned from them. Adding this to her own ideas about the value of cleanliness and rest in time of sickness and injury, a good housewife could relieve much suffering.

She made (and "kept on hand") salves for skin irritations, vinegar for antiseptic purposes and muscular pains, herbs, and oils for dressings. Alcohol was used in many ways. The men (many of them latecomers from the rugged highlands of Scotland and Ireland where the making of fine whiskey was a talent bred into them) operated their own private "stills" and, no doubt, started the rumor about knowing the "sure cure" for snakebite.

Remedy		For
Peach tree bark and leaves	(Poultice)	Blisters
Wet Tobacco leaves	(Poultice)	Stings; wounds
Catnip tea		Hives
Yellow Dock root (in vinegar)	Wash	Ringworm
Poke (root) (in salve)		Itch
Red Alder (tea)		Hives
Dock leaves	(Poultice)	Boils; snakebite
Kerosene and turpentine	(applied)	Snakebite
Slippery Elm (bark and sap)	Salve	Rash; wounds
Pokeberries (dried)	(Poultice)	Incurable sores
Wood Ashes (rubbed on)		Removing warts
Hazelnut tree (powdered bark)		Sores
Prickly Ash (chewed bark)	(Poultice)	Sores
Knot Grass (plant)	Juice applied	Cuts; bruises
White Ash tree (buds)	Tea	Snakebite
Jimson Weed (blossom)	(Poultice)	Wounds; painkiller

Salves for wounds were made of: Fir Balsam pitch; Sweet Gum (roots, boiled); Irish Moss jelly; Primrose; St. John's Wort; Chickweed; Plantain; Hollyhocks; powdered Water Lily root; Calendula (flowers and leaves); Nut Gall (bark); Sour Dock; etc.

Remedy		For
Alder tree (chewed bark)	(poultice)	Wounds; ulcers
Hickory bark (tea)	(applied)	Dressing wounds
Sarsaparilla bark	(tea)	Dressing wounds
Elder (bark)	(Poultice)	Wounds
Dandelion leaves	(crushed, with water)	Wounds

Remedy		For
Wild Rose stems (dried)	(Powdered)	Wounds
Plantain (wet leaves)	(Poultice)	Snakebite; wounds
Squash Seeds	(Crushed)	Healing wounds
Oak Tree (bark)	(Boiled tea applied)	Burns; sore mouth
Starch and Castor Oil paste	(Applied)	Skin rash
Dry Starch	(Applied)	Chapped skin
Vinegar	(Applied)	To harden skin; cleanse; Impetigo; Pimples
Witch Hazel (leaves bark boiled)	(Applied)	Inflammation

To Stop Bleeding: Witch Hazel; Wads of cobwebs in wound; Puff Ball (also for nose bleed); etc.

For Burns, they applied: Strong tea (boiled, for tannic acid); diluted alcohol; Butter; Honey; salves; cold water; etc.

For Dressings, they distilled oil from: Juniper Wood (Oil of Dade); Silver Pine; White Pine; Cedars; etc.

For Bruises, they used: Vinegar; Life Everlasting leaves; Marigold (tincture); Wild Alum; Lily of the Valley roots; etc.

Warts and Moles were treated by applying: Milkweed juice; Celandine (Wart weed); Castor Oil; Chigger Weed (sap); etc.

For Frostbite: Boiled Beech Tree leaves; Boiled Onion Poultice.

Bittersweet root bark made into a strong tea was applied for skin irritation, but the berries are found to be poisonous.

Plantain (that hardy green weed which grows so well in most lawns) was appreciated much more when its tea was used as a tonic, (served cold); and the crushed, fresh leaves were rubbed on to relieve wounds, "breaking out" and rectal itch.

For Poison Ivy: Jewel Weed (Touch-me-not) rubbed on; Sweet Fern; etc.

Activities---Foods, Remedies

1. Plan a "pioneer" dinner. In the fall with all the produce coming in, is the time to have the students cook meals eaten by the settlers. Try pumpkin pie, apple sauce, butter (special kit available from Material Center) bread and cookies. Cook a one pot meal. The cafe will help you get food. Most can be done out on the playground over an open fire on a hotplate in the room. Let small committies plan food for lunch and do it in small groups so all can have a part. Make up a recipe book from the rest of the school.

2. Try "new" old things like fruit "leather" and drying apples, etc in the window.

3. Gather late greens and try them. Most school sites have several edible foods.

4. Gather nuts - both from school site and near by. Have students shell them. Save for Christmas Cookies or other goodies.

5. Make pioneer cosmetics in the room (put in section marked in Green Thumb tricks).

6. Get students to make a study of early remendies. Have them ask their grandparents about things they used. Make up a booklet listing these.

7. Get herbs and make sachets and potpourri containers for Christmas presents (save medicine bottles and decorate).

8. Make a diorama (miniature) showing pioneers cooking with all of the different things they used.

9. Ask students from other ethnic backgrounds to bring in a recipe from their mother's or grandmother. Discuss how it is different/alike from the recipies we usually eat now. Use this discussion for a springboard to discuss climate differences in body build of different people, (because of food) and how it is now changing because of all people being able to get different types of foods. Use the Japaneese as an example. We used to think of them as short but now their volleyball team is quite tall and many are as tall as other nations. Carry this a little further in regard to the size of the pioneers and the life expectancy in contrast to the people of today. This can lead to the study of health practices etc.

10. Do a study of the foods that we ate now and try to find out how many of them were available to the early settlers. Discuss why some were not eaten by the pioneers. Try to find out how many plants were introduced to this country by settlers. See if all are still being used as vegetables (dandelion, lambs quarters).

11. Do resource on the food plants that were introduced to the settlers by the Indians. What foods are native only to North and South America? (map available from ODE Dept.)

12. Do some research on the medicines that were given to the settlers by the Indians.

13. What conservation practices were practeced by the Indians and what did they teach the settlers? (To put dead fish in as fertilizer with the corn was one.)

14. Explore Colonial cooking with apples and cider boiled down with cinnamon to make apple butter. Make jellies and jam with berries early in the fall.

15. Find out what sickness was most common in the early days. Is it the same as now? What about medicines then and now?

Horizon - '75 - Conservation and Beautification Projects

Part of the Bicentennial celebration focuses on the future, the betterment of our nation and it is in this area that students can play a big role. Starting with the school site and extending into the neighborhood of the school. A great number of projects can be done by the students, perhaps with the help of parents and volunteers. Below are some suggestions for projects. Related resources will be found in the bibliography, as well as agencies that can be of help.

1. Make sure that a sample of both the state tree (Tulip Poplar) and the state flower(s) are planted on the site. The Dept. of Environmental/Outdoor Education will provide several seedlings of the Tulip tree to interested schools. These will be available in February and can be obtained by calling or writing the Dept. The state flower(s) are the Iris and the Passion flower or Wild Apricot. It is possible that Iris might be obtained from local garden clubs.

2. Plant other trees on the school site - trying to get those that were important to the pioneers in the settling of this area. Also plant trees that might attract birds.

3. Plant scribs and plants that will attract birds and animals. The Natural Resources Dept. has, in the past, provided seeds for these plants.

4. In the spring plan a garden. Many vegetables will come up before school is out and if neighborhood students will watch the garden during the summer, the crops can be used in the classroom in the fall.

5. A herb garden could also be planted, set out as the pioneers did this type of garden. Many garden clubs will assist in such a project.

6. Plant flowers and have the students gather weeds during the summer. Hang up to dry and prepare dried pioneer arrangements for a pioneer craft sale for presents.

7. Plant gourd vines on the fences surrounding many of the schools. Gather in the fall and use in pioneer crafts. Grapes could also be planted (talk to the custodian before planting anything and get them on your side. Too often trees, plants and gardens have been destroyed by the mower.)

8. Have not one but several clean up committies at the school. Have spot announcements read over the school intercom systems. Put up posters, both in the school area and neighborhood. Don't wait for an outside group to suggest it. Let it come from the students.

9. Build a Litter Monster "Film available from Tenn. Beautiful". Stuff it with trash from the site.

10. Make a Scrap Collage from litter found on the site.

11. With the help of a "welding parent" make tops (animal clown etc) from large trash cans. Paint "Feed Me" on the side. Put on the school site.

12. Get the Johnny Horizon (local help - Corp. of Engineers) material and follow suggestions.
Arrange a litter alert in the schools. At a given time, students pick up any litter they find-wherever they happen to be. Publicize the event.

Have a contest for the cleanest yards in a suburban area or the cleanest block for a period of three months. Award certificates to winning families.

Have students make anti-litter posters for their school buses.

Plan early morning cleanups - 6:00 to 8:00 am-followed by breakfast.

Make signs for park areas or overnight camper facilities encouraging litter prevention-but make sure the signs are properly weather-treated so they don't become litter themselves.

Ask your community "Welcome Wagon" to include litterbags and other anti-litter materials in the packets they provide to new residents.

13. Select at least two months - have a special environmental problem pinpointed for each week (ie, noise, litter, air pollution, water pollution). Materials available from Dept. of Environmental Outdoor Education. Have plays, posters, program for PTA, and student made booklets, tapes or slides on that subject.

14. Build a Community Nature Trail on the school site or in a vacant lot nearby. Invite parents and the community to the trail with a self guided booklet and student guides. Help from teacher's manual.

15. Use the school and community and the Dept. of Environmental Education.
Use scrap paper. It has two sides, you know.
Donate old magazines, books, and clothing to groups like the Salvation Army or Goodwill Industries ... someone needs them.
Use local recycling centers. If there are none in your community, work for their establishment.
Use public transportation. Ride a bicycle or walk to school or work. Why ride when you can walk?
Make local news media aware of your interest in adequate coverage of environmental news.

Encourage the establishment of bicycle lanes and trails.

Don't burn leaves-use them for a compost pile or as mulch for your garden.

Save grass clippings. They add nutrition to the soil and help hold moisture.

There are many other ideas in the Teacher Manuals provided by the Dept. of Environmental Education. Get these books and use them with your students.

Do a unit on Pioneers (and Indians) as conservationists. Bring out the facts that it was not that they practiced good conservation practices (they did not) but there were few of them and a lot of natural resources. Point to the practice of the Indians to burn off areas to drive game where they could be killed. Tennessee changed from an original state grazing and mineral state because the early settlers did not know or practice crop rotation and therefore "wore out" the land. What was alright for the early people (wholsale killing of game) can not be done today.

16. Base a program on "Lets Save America for another 200 years". Construct a Bincentennial walk around the school yard - showing things that are there that might have been used by the settlers - plants, trees, building materials. Show situations where a conservation project has been done. Plantings on banks, check dams in gullies.

SONG OF HILARITY

On Monday, April 24, 1780, a party of pioneers led by Col. John Donelson arrived at French Salt Lick, on the Cumberland River in Middle Tennessee. Col. Donelson's boat, the "Adventure," was the largest of the forty boats that made the journey from the Wautauga Settlement in Eastern Tennessee to Salt Lick.

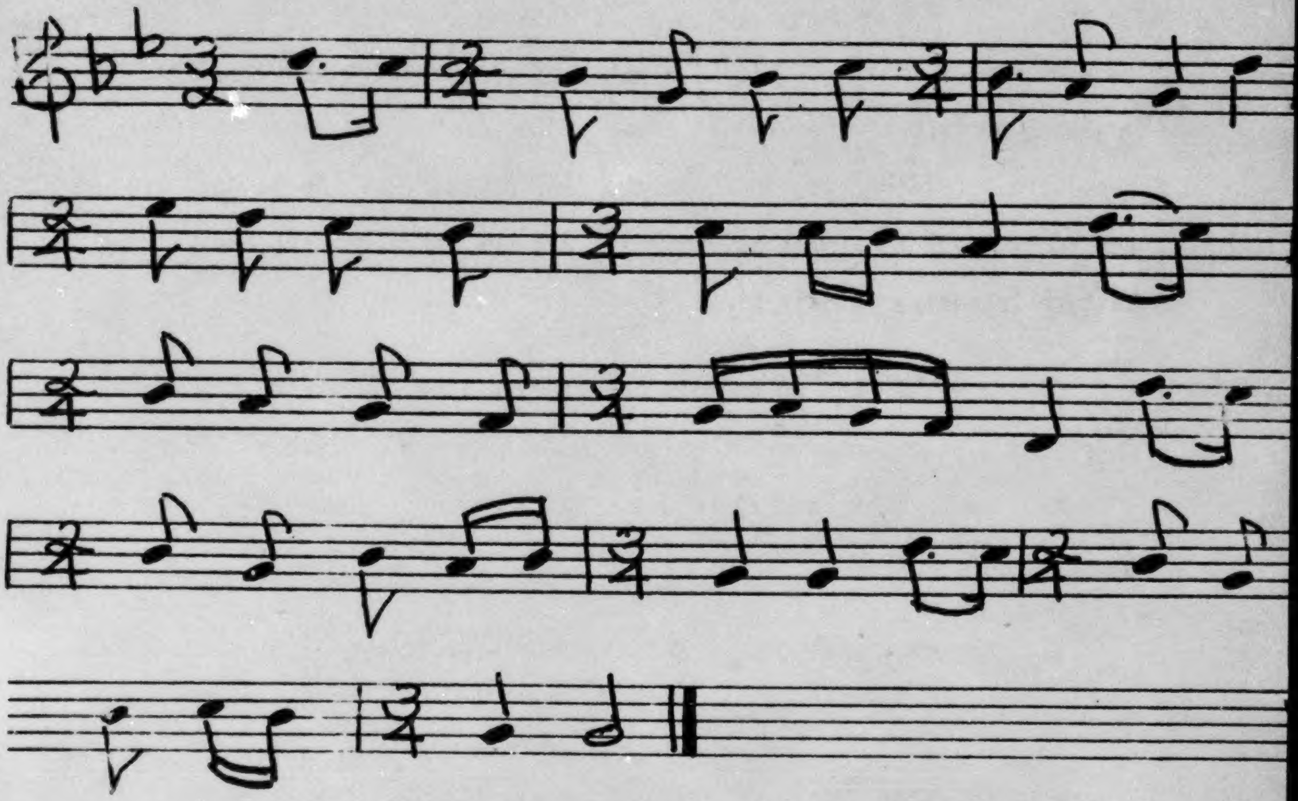
Lizzie P. Elliott in her history of Nashville says, "The lighhearted merriment of the young people helped to make many hours happy. There was a fiddler among them, and there was singing and music, and dancing of a happy kind."

Col. Donelson's daughter, Rachel, who later married President Andrew Jackson, was on the "Adventure."

On May 1, 1780, representatives from all the stations in Middle Tennessee met and formed the Government of the Notables, as they called themselves. It was a free and independent government before the United States was formed. At this meeting the fort on the bluff was named Nashborough for their friend Gen. Francis Nash. A replica of this fort stands on the Cumberland River near the site of the first one.

Four our Tennessee Sesquicentennial celebration, June 1946, Dr. George Pullen Jackson put words of hilarity to the beautiful Old English tune, "Mississippi," which was sung on the arrival of Col. Donelson's party in the pageant. This tune if found in Dr. Jackson's collection, Spiritual Folk Songs of Early America. A copy of the song as arranged by Dr. Jackson is in the Library of Congress.

SONG OF HILARITY



Come all ye hardy pioneers,
Come sing good-by to all your fears.

To our old boat let's give three cheers:

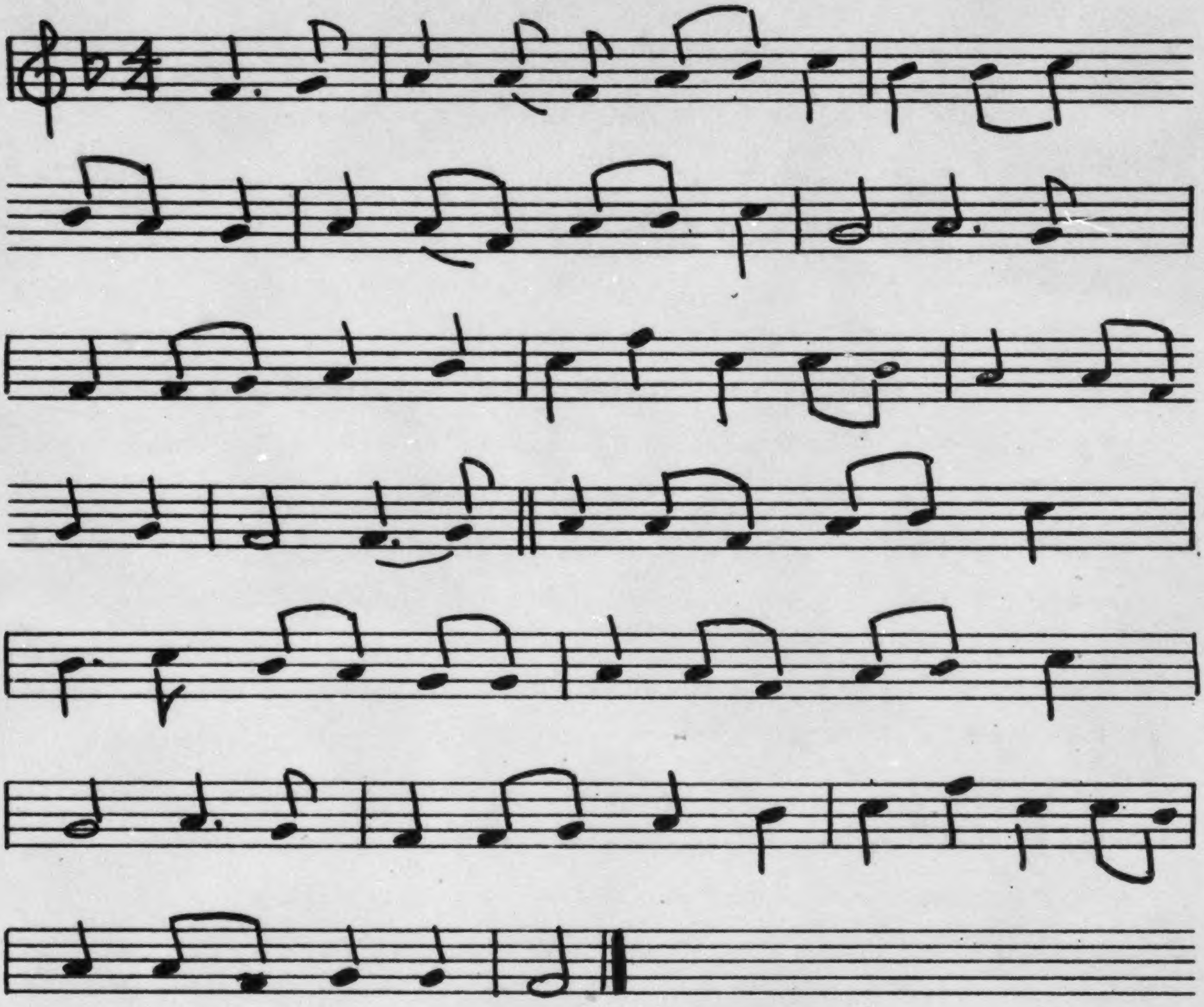
Our good old boat Adventure.
Our good old boat Adventure.

I AM BOUND FOR THE PROMISED LAND

Before the time of the Revolutionary War, the Early American Colonists had no printing presses and so books were scarce. Very often the only hymn book in a congregation was in the hands of the minister or deacon of the church. So, for a long time church singing was neglected. There was no part-singing, merely the tunes of a few handed-down "psalms" or hymns whose words were read or "lined out" or "deaconed" a line or two at a time. We shall "line out" "The Promised Land," a favorite hymn of President Andrew Jackson. This song was also sung to Sam Davis, another Tennessee hero, by an Union Army Chaplain, on the night before his execution. Young Davis chose to die rather than give Confederate secrets to the Union Army.

During a visit to the Sam Davis Home, Smyrna, Tennessee, Mrs. Media Davis Sinnott, a niece, gave us the following story: On the night before Sam Davis was executed the Federal Chaplain, James Young of the 81st Ohio Infantry, who had been his constant companion, visited him in his cell. He asked the Chaplain to go with him the next day to the gallows and pray. Together they sang his mother's favorite hymn, "On Jordon's Stormy Banks I Stand," quietly, with attention to the words. The Chaplain left him about ten o'clock that night. At ten o'clock the next morning the drums sounded sharply and the regiment marched past the jail toward Seminary Ridge where the hero was executed.

I AM BOUND FOR THE PROMISED LAND



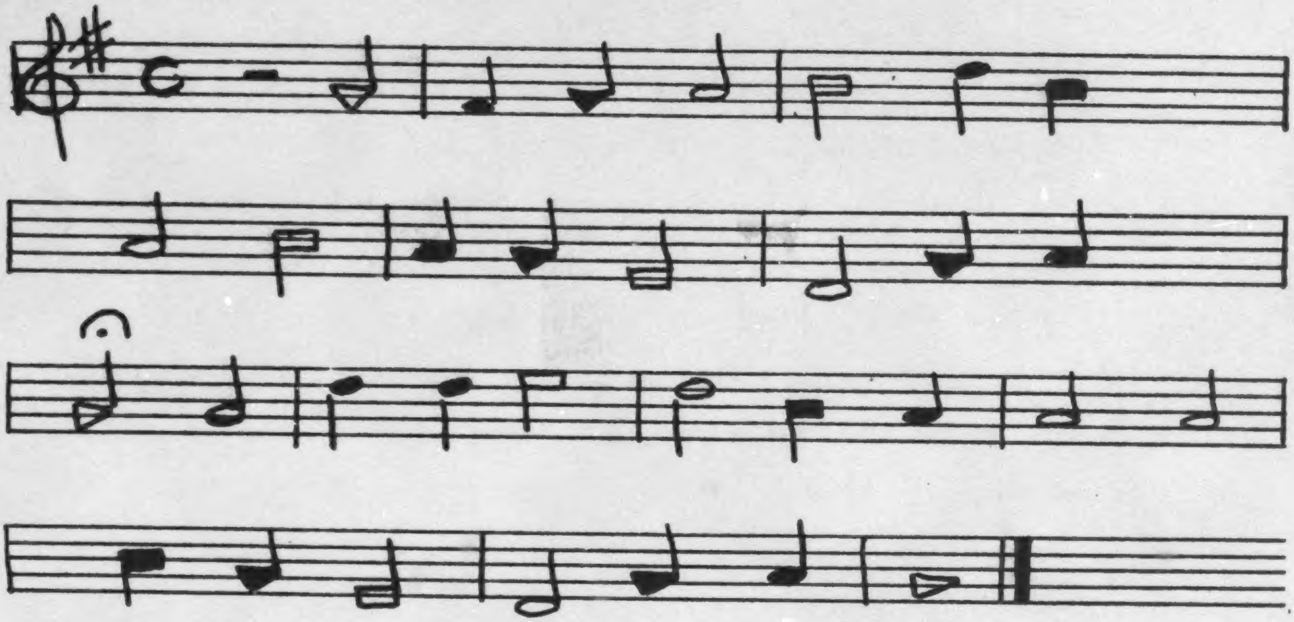
On Jordan's stormy banks I stand and cast a wishful eye,
To Canaan's fair and happy land where my possessions lie.

I am bound for the promised land, I am bound for the promised land.
O, who will come and go with me? I am bound for the promised land.

ROCKINGHAM

Dr. George Pullen Jackson tells us that the Early Colonists used a method of note reading that was popular in England during the time of Shakespeare. The notes are called by four names and each note is known by its shape. The _mi_ is diamond shaped, _fa_ is triangular, _sol_ is round and _la_ is square. _Mi_ is the leading or governing note and its position on the staff is determined by the number of flats or sharps. We first find _mi_, then the notes on the lines and spaces above are called fa, sol, la, fa, sol, la and those below _mi_ are called la, sol, fa, la, sol, fa. The congregation usually sings the notes first and then the lyrics. In southern parts of Tennessee this method of singing is still used. The melody "Rockingham" as given here is found in _Southern Harmony_.

ROCKINGHAM



Fa mi fa sol la sol la sol
La sol fa la sol fa sol fa

Fa sol sol la sol la sol sol
Sol la fa la sol fa sol fa

Thy praise, O Lord, shall tune the lyre,
Thy love our joyful songs inspire,

To thee our cordial thanks be paid,
Our sure defence* our constant aid.

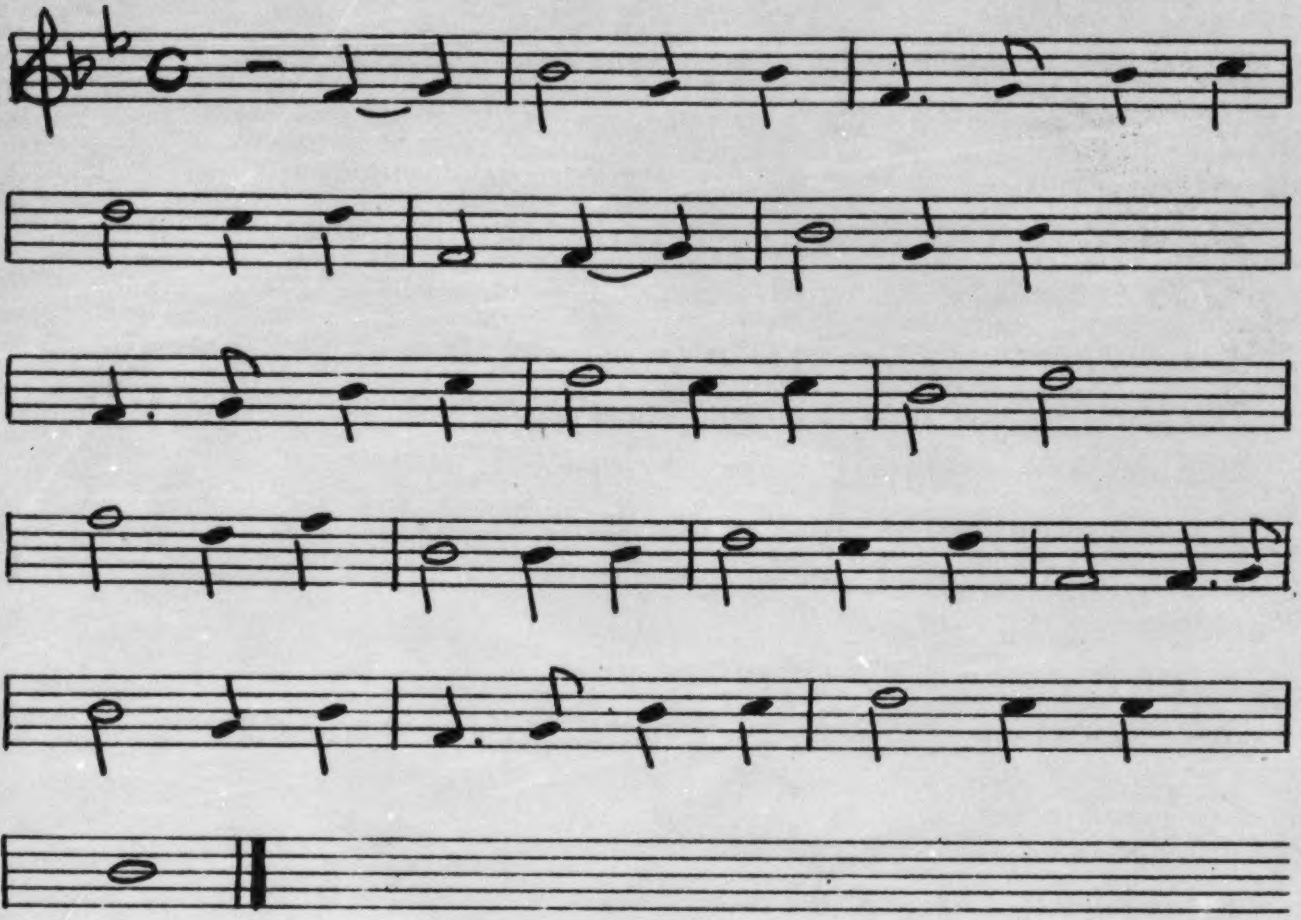
*British spelling

PROTECTION

Quoting Dr. George Pullen Jackson further, "The neglect of church singing changed for the better in our Revolutionary times and afterwards. Due to the great awakening in religion, the springing of singing schools everywhere, do, re, me notes with which we are familiar." Another important development was the establishment of American Religious Folk Songs. A typical song of this type and one widly sung more than a century ago was "How Firm a Foundation," also called "Protection" or "Bellevue." The tune used here was in the Kentucky Harmony, a book popular in Tennessee during President Andrew Jackson's lifetime. Old-timers are sure this tune was the favorite at the Hermitage.

Giving an account of a visit to General Jackson at the Hermitage in 1843, the Rev. James Gallager said in the Western Sketch Book, "The old hero was then very frail and had the appearance of extreme old age; but he was reposing with calmness and confidence on the promise and covenant of God." He had now been a member of the church for several years. During the conversation which took place the General turned to Mr. Gallager and remarked: "There is a beautiful hymn on the subject of the exceeding great and precious promise of God to His people. It was the favorite of my dear wife till the day of her death. It commences in this way: "How firm a foundation, ye saints of the Lord." I wish you would sing it now." So the little company sang the entire hymn.

PROTECTION



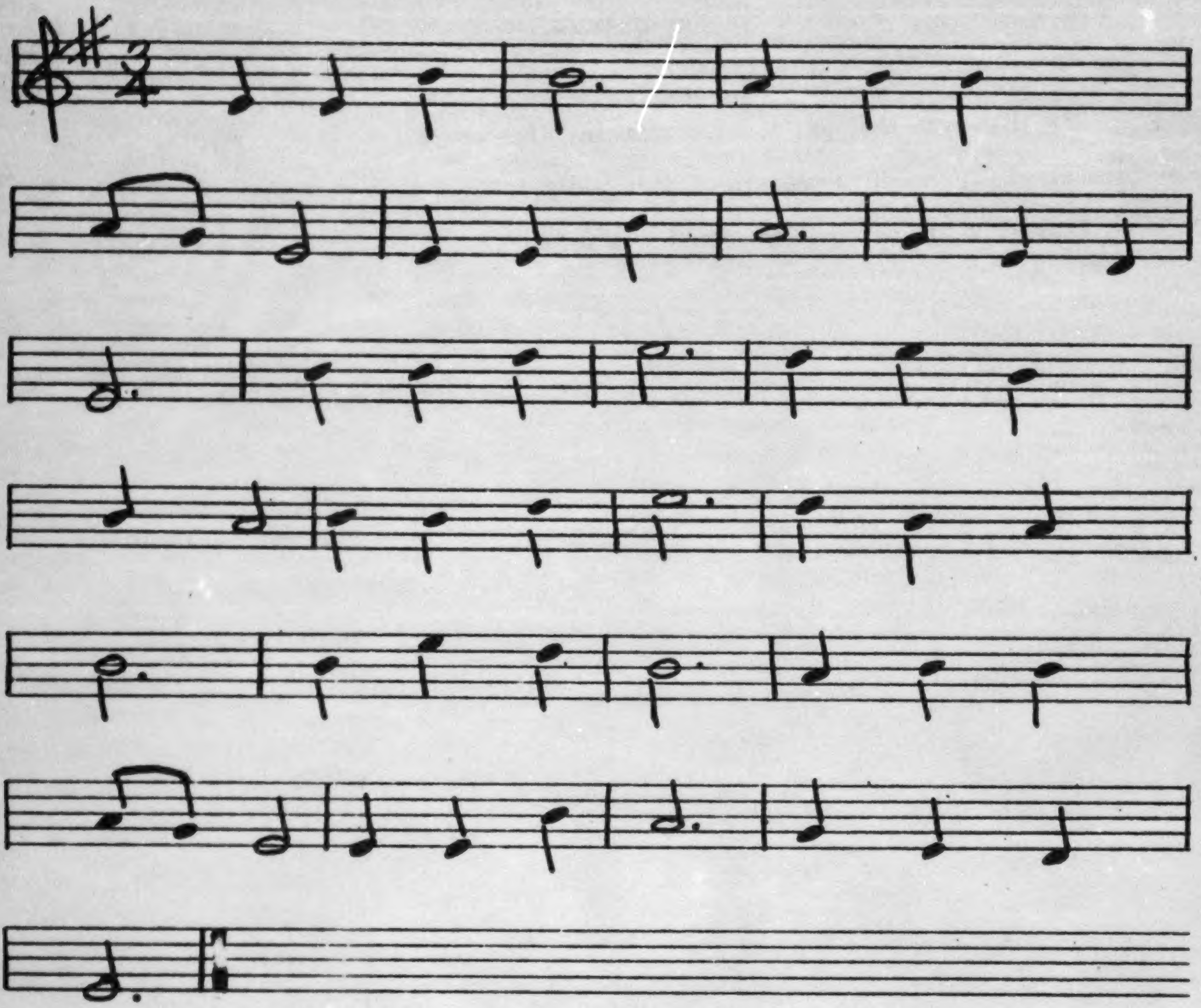
How firm a foundation, ye saints of the Lord,
Is laid for your faith in His excellent word!

What more can He say than to you He hath said,
You who unto Jesus for refuge have fled?

A POOR WAYFARING STRANGER

Another hymn that was popular with the pioneers was "A Poor Wayfaring Stranger." Choral arrangements of this old hymn have been made by both Mr. Charles Bryan and the late Mr. E. J. Gatwood.

A POOR WAYFARING STRANGER



I'm just a poor wayfaring stranger, while traveling through this world of woe.
But there's no sickness, toil, nor danger in that bright world to which I go.

I'm going there to see my Father,
I'm going there no more to roam,

I'm just a-going over Jordon,
I'm just a-going over home.

NEGRO SPIRITUALS

Booker T. Washington once said: "The plantation songs known as "Spirituals" are the spontaneous out-burst of intense religious fevor, and had their origin chiefly in the camp-meeting, the revival, and in other religious exercises. They breathe a childlike faith in a personal Father, and glow with the hope that the children of bondage will ultimately pass out of the wilderness of slavery, into the land of freedom. The music of these songs goes to the heart because it comes from the heart. "Swing Low Sweet Chariot" is regarded by musicians as one of the most beautiful folk songs found in the musical literature of any people."

In the moving picture depicting particularly the military career of General Andrew Jackson, slaves were seen coming to the front steps of the Hermitage and singing "Ain't Goin" to Study War no More," "Swing Low, Sweet Chariot," and "Steal Away."

A STATE SONG

"My Tennessee" (Tune: Beulah Land) was written by the Rev. A. J. Holt, a Baptist minister in Nashville. This song was first sung at the opening of the Tennessee Centennial at Nashville, May 1, 1897. Although it was not legally adopted by the State Legislature, public sentiment has made it a State Song. In order that it might have its proper atmospheric setting in Tennessee history, the late John Trotwood Moore, distinguished author, State Historian and Librarian, added a second chorus.

Tennessee (Air--Beulah Land)

The land of pure and balmy air,
Of streams so clear and skies so fair,
Of mountains grand and fountains free,
The lovely land of Tennessee

Oh, Tennessee, Fair Tennessee,
The land of all the world to me;
I stand upon the mountains high
And hold communion with the sky,
And view the glowing landscape o'er
Old Tennessee forever more.

The fairest of the fair we see,
The bravest of the brave have we,
The freest of the noble free,
In liberty loving Tennessee.

Oh, Tennessee, brave Tennessee, (Second Chorus)
King's Mountain called you to be free,
From Chalmette's plain to Mexico
Your loyal sons were first to go;
When Freedom calls, though far or near,
Old Tennessee is Volunteer.

The rarest fruits and fairest flowers,
And happiest homes on earth are ours,
If heaven below could only be,
Twould surely shine in Tennessee.

ON TOP OF OLD SMOKY

1. On top of old Smoky,
All covered with snow,
I lost my true lover,
From courtin' too slow.

2. For courtin's a pleasure,
And partin's a grief,
But a false-hearted lover,
Is worse than a thief.

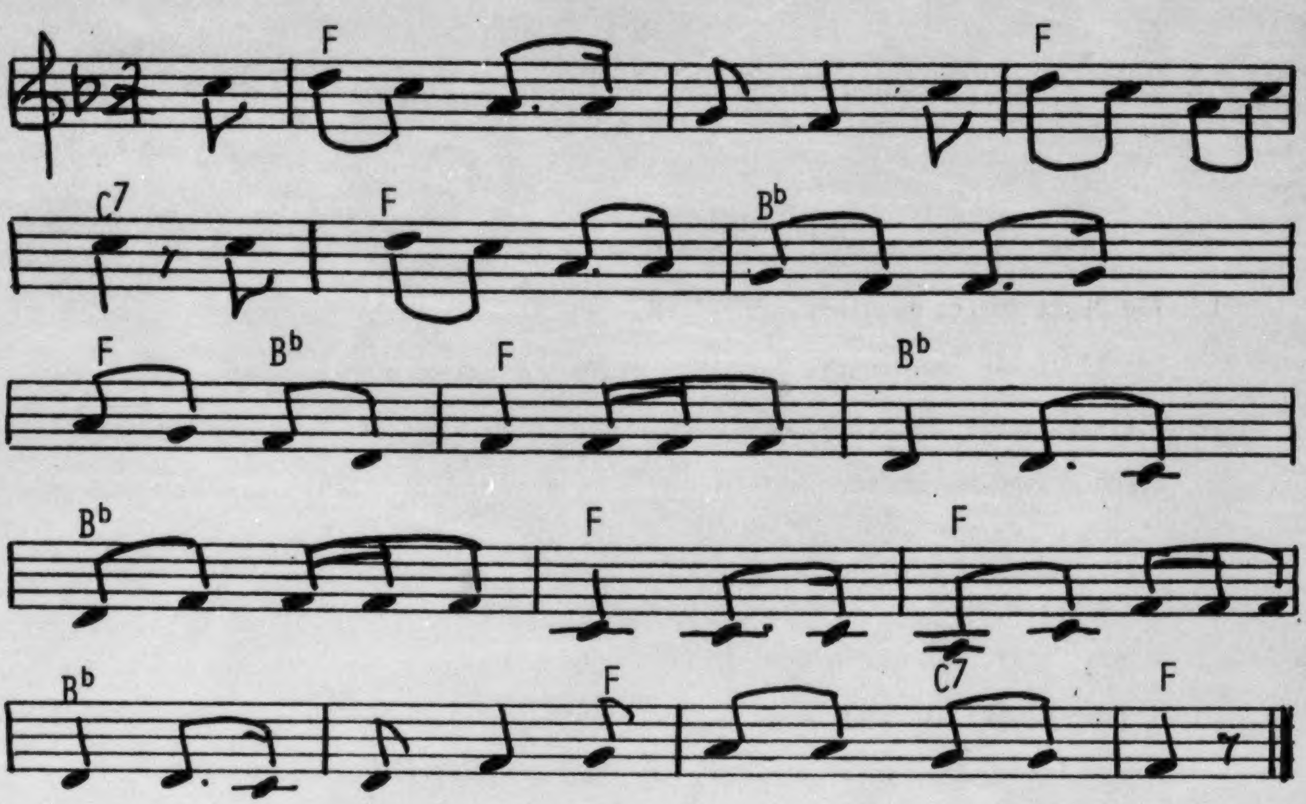
3. For a thief he will rob you,
And take what you save,
But a false-hearted lover,
Will lead you to your grave.

4. For the grave will decay you,
And turn you to dust,
One girl in a million,
A poor man can trust.

5. Oh, the leaves they will wither,
The roots they will die,
Will all be forsaken,
And never know why.

6. Bury me on Smoky,
On Smoky so high,
Where the wild birds in heaven,
Will hear my sad cry.

CINDY


F
F
C7
F
Bb
F
Bb
F
Bb
Bb
F
F
Bb
F
C7
F

You ought to see my Cindy,
She lives way down south,

She's so sweet the honey bees
Swarm around her mouth.

(chorus) Get along home,
Cindy, Cindy, get along home,

(Cindy, Cindy) get along home,
Cindy, Cindy, I'll marry you some day.

CINDY

1. You ought to see my Cindy,
She lives way down south,
She's so sweet the honey bees
Swarm around her mouth.

Chorus
Get along home,
Cindy, Cindy, get along home,
(Cindy, Cindy) get along home,
Cindy, Cindy, I'll marry you some day.

2. I wish I was an apple
A-hanging on a tree,
Every time that Cindy passed,
She'd take a bite of me.

3. She kissed me and she hugged me,
She called me sugar plum,
She throwed her arms around me,
I thought my time had come.

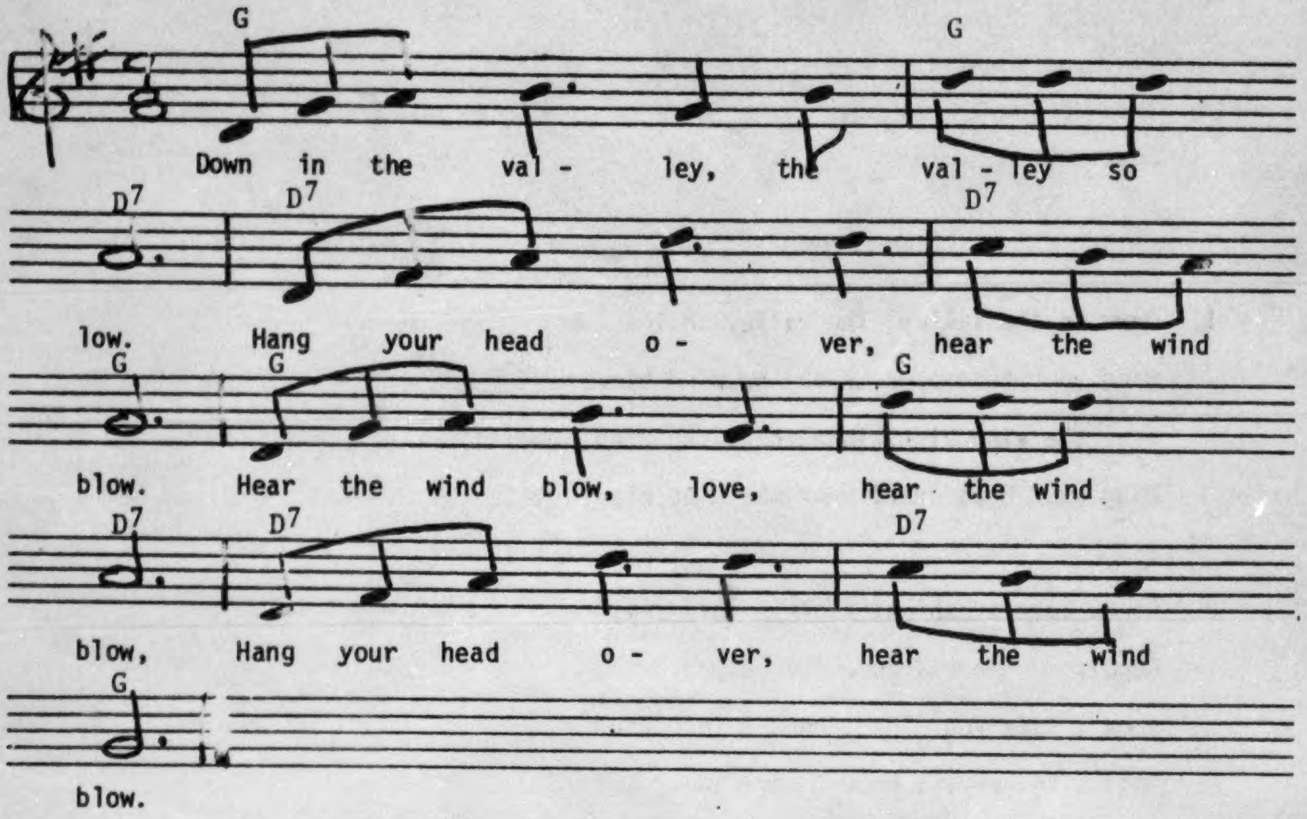
4. She took me to her parlor,
She cooled me with her-fan,
She said I was the prettiest thing
In the shape of mortal man.

5. Now Cindy got religion,
She had it once before,
But when she heard my old banjo
She's the first one on the floor.

6. Now Cindy got religion,
She wheeled round and round,
She got so full of glory,
She knocked the preacher down.

7. Oh, Cindy is a pretty girl,
Cindy is a peach.
She threw her arms around my neck,
And hung on like a leech.

DOWN IN THE VALLEY


G
G
Down in the val - ley, the val - ley so
D7
D7
D7
low. Hang your head o - ver, hear the wind
G
G
G
blow. Hear the wind blow, love, hear the wind
D7
D7
D7
blow, Hang your head o - ver, hear the wind
G
blow.

Passantino
NO. 2 MUSIPACK 10 STAVE

DOWN IN THE VALLEY

1. Down in the valley, the valley so low.
Hang your head over, hear the wind blow.
Hear the wind blow, love, hear the wind blow,
Hang your head over, hear the wind blow.

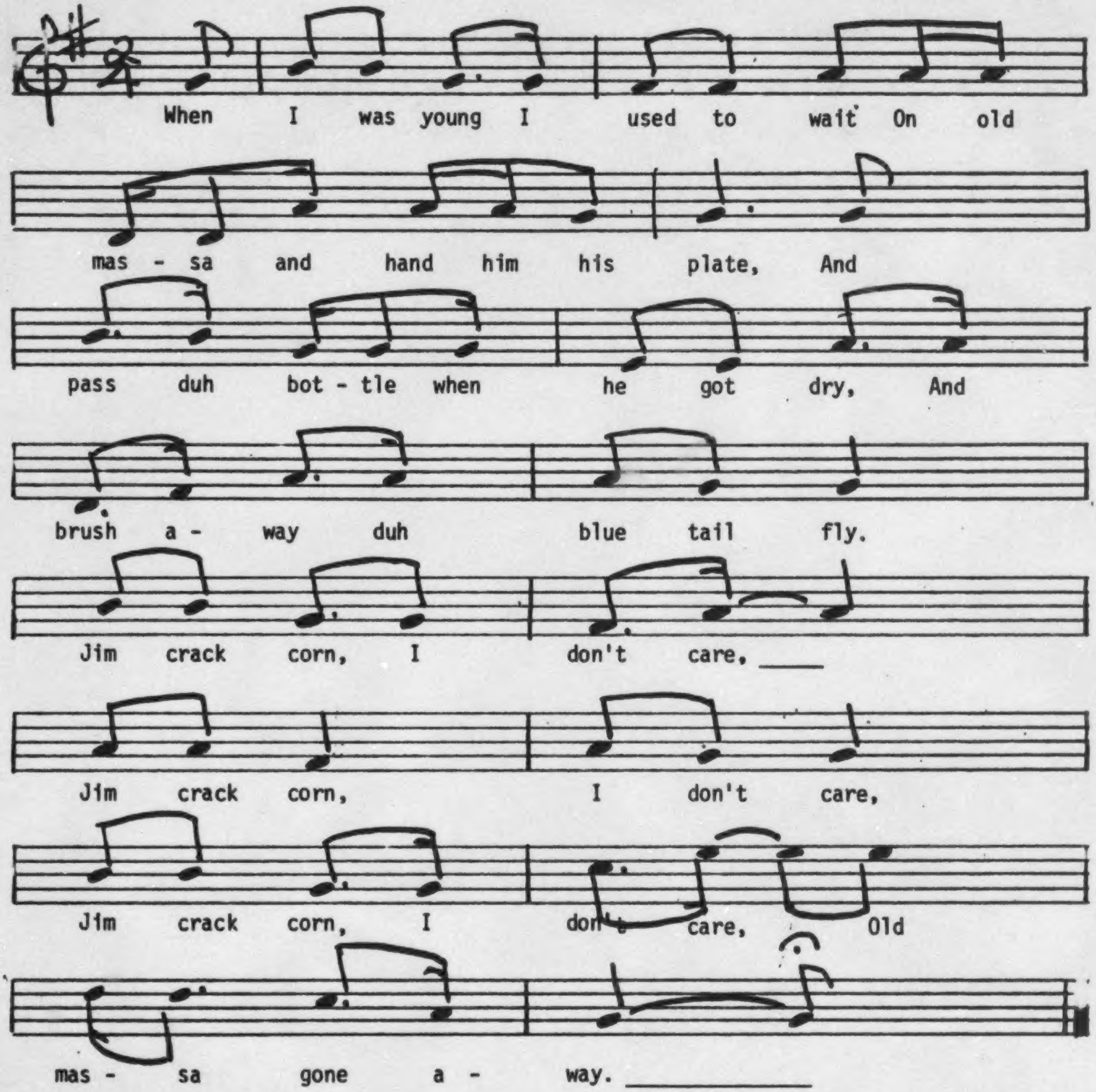
2. Roses love sunshine, violets love dew,
Angels in heaven, know I love you.
Know I love you, love, know I love you.
Angels in heaven, know I love you.

3. Write me a letter, send it by mail,
Send it in care of Birmingham jail.
Birmingham jail, love, Birmingham jail,
Send it in care of, Birmingham jail.

4. If you don't love me, love whom you please,
Throw your arms 'round me, give my heart ease.
Give my heart ease, love, give my heart ease,
Throw your arms 'round me, give my heart ease.

'Most everybody likes to drive to town on Saturday night to see the bright lights and maybe take in a good show. Nowadays you can jump in the flivver to see the latest movie. Before the movies came to town, you could hitch up the horse and drive to the nearest town where there'd be a minstrel show with tunes like "The Blue Tail Fly."

THE BLUE TAIL FLY


When I was young I used to wait On old
mas - sa and hand him his plate, And
pass duh bot - tle when he got dry, And
brush a - way duh blue tail fly.
Jim crack corn, I don't care, ____
Jim crack corn, I don't care,
Jim crack corn, I don't care, Old
mas - sa gone a - way. ____________

Passantino

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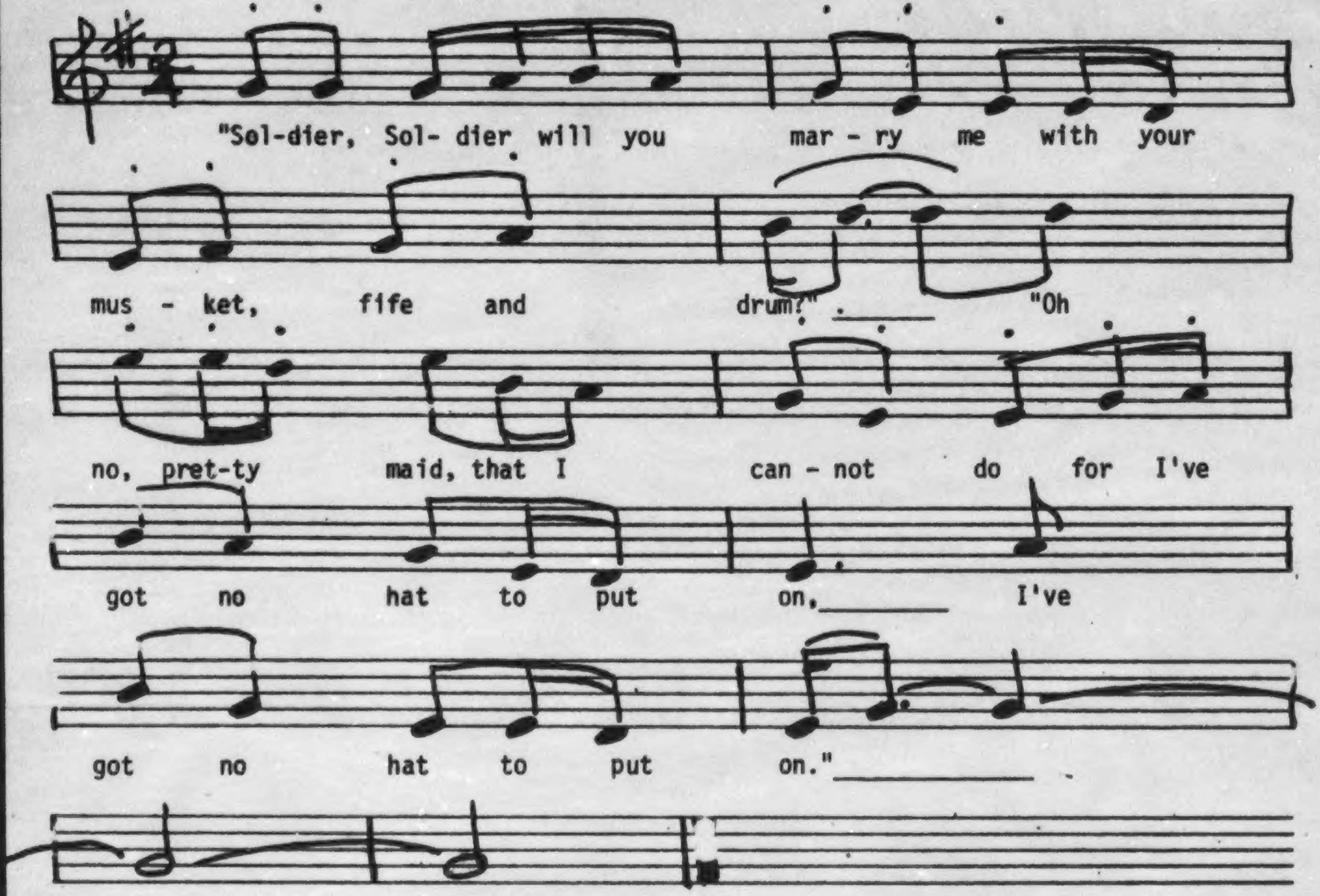
One of the wise authors of the book of Proverbs confessed there were four things he did not understand - the way of an eagle in the air, the way of a ship at sea, the way of a serpent on a rock, and the way of a man with a maid. The soldiers in our War of Independence-as you can see-had a way with maids that was a big help in getting their uniforms.

SOLDIER, SOLDIER, WILL YOU MARRY ME?


"Sol-dier, Sol- dier will you mar - ry me with your
mus - ket, fife and drum?" ____ "Oh
no, pret-ty maid, that I can - not do for I've
got no hat to put on,________ I've
got no hat to put on."____________

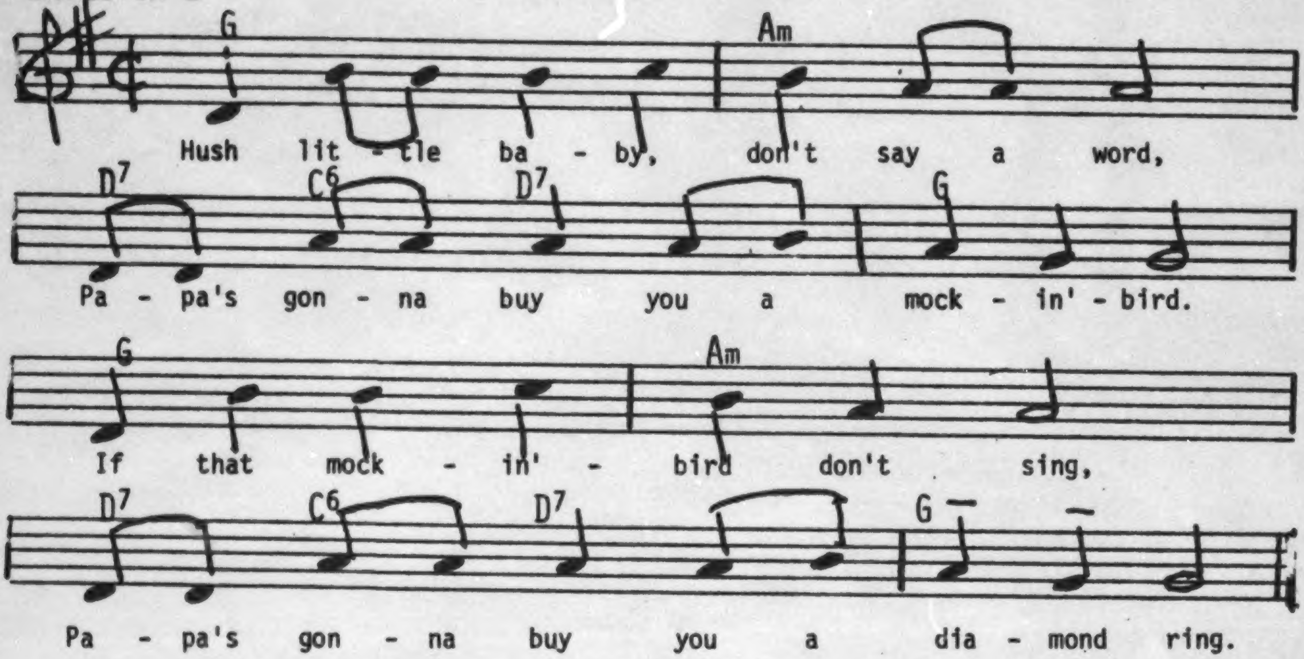
HUSH LITTLE BABY

3. If your billy goat don't pull,
Papa's gonna buy you a cart and bull.
If that cart and bull turn over,
Papa's gonna buy you a dog named Rover.

4. If your dog named Rover don't bark,
Papa's gonna buy you a horse and cart.
If that horse and cart fall down,
You'll be the sweetest little baby in town.

HUSH LITTLE BABY

GENTLE-IN 2


G Am
Hush lit - tle ba - by, don't say a word,
D7 C6 D7 G
Pa - pa's gon - na buy you a mock - in' - bird.
G Am
If that mock - in' - bird don't sing,
D7 C6 D7 G
Pa - pa's gon - na buy you a dia - mond ring.

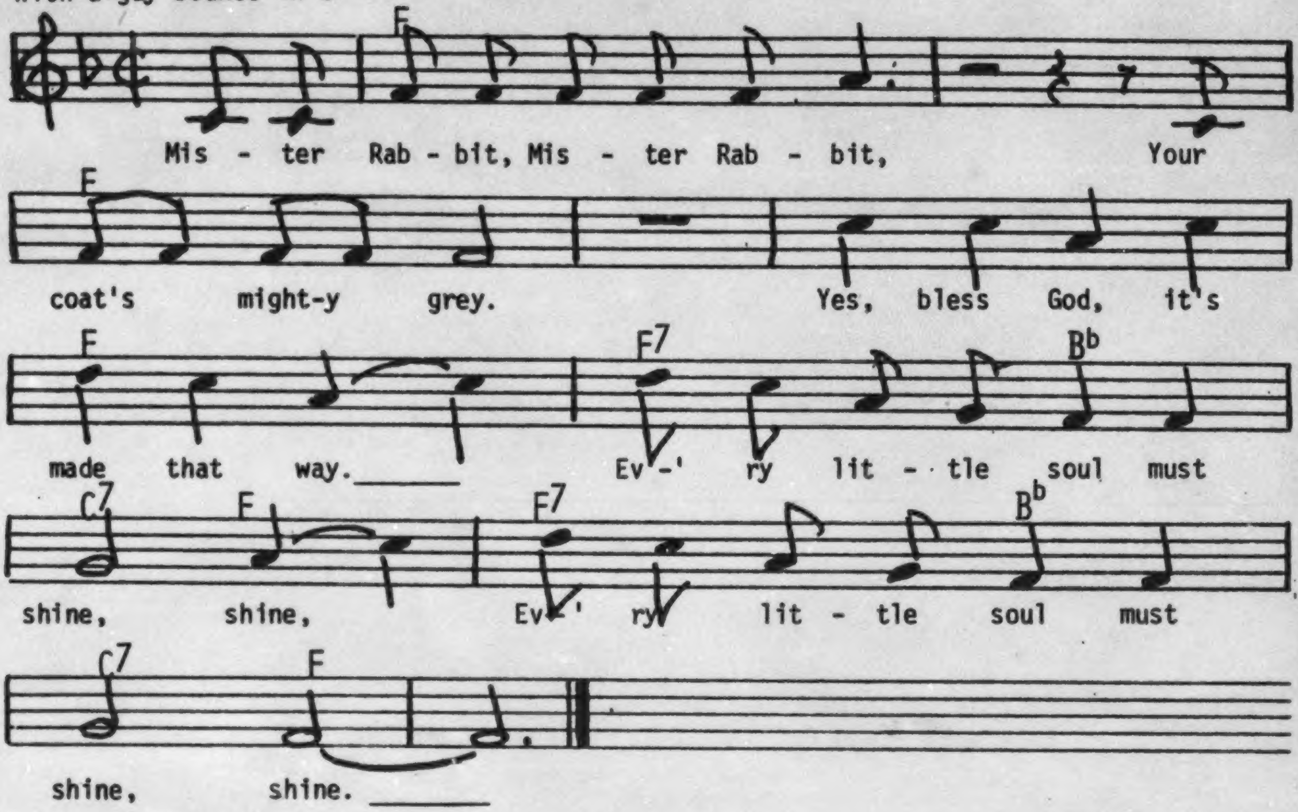
2. If your diamond ring turns brass, Papa's gonna buy you a lookin' glass.
   If that lookin' glass gets broke, Papa's gonna buy you a billy goat.

3. If your billy goat don't pull, Papa's gonna buy you a cart and bull.
   If that cart and bull turn over, Papa's gonna buy you a dog named Rover.

Passantino

MISTER RABBIT

With a gay bounce-in 2


F
Mis - ter Rab - bit, Mis - ter Rab - bit, Your
F
coat's might-y grey. Yes, bless God, it's
F
made that way.
F7
Ev - ' ry lit - tle soul must
Bb
C7
shine,
F
shine,
F7
Ev - ' ry lit - tle soul must
Bb
C7
shine,
F
shine.

2. Mister Rabbit, Mister Rabbit, Your ears are mighty long.
Yes, bless God, they're put on wrong. (chorus)

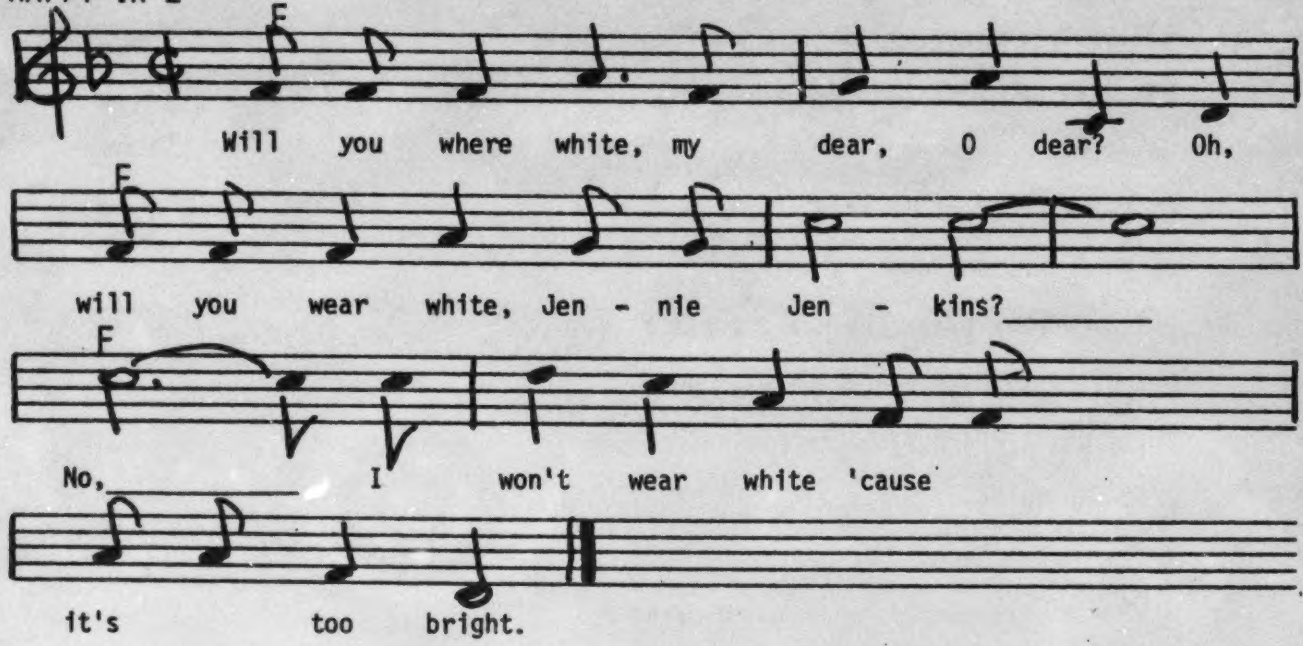
3. Mister Tabbit, Mister Rabbit, your ears are mighty thin.
Yes, bless God, they're splitting the wind. (chorus)

4. Mister Rabbit, Mister Rabbit, your eyes are mighty red.
Yes, bless God, I'm almost dead. (chorus)

Passantino
NO. 2 MUSPACK 10 STAVE

JENNIE JENKINS

HAPPY-IN 2


F
Will you where white, my dear, O dear? Oh,
F
will you wear white, Jen - nie Jen - kins?
F
No, I won't wear white 'cause
it's too bright.

2. Will you wear blue, my dear, O dear?
Oh, will you wear blue, Jennie Jenkins?

No, I won't wear blue 'cause the color's too true.

Passantino
NO. 2 MUSPACH 10 STAVE

JEANNIE JENKINS

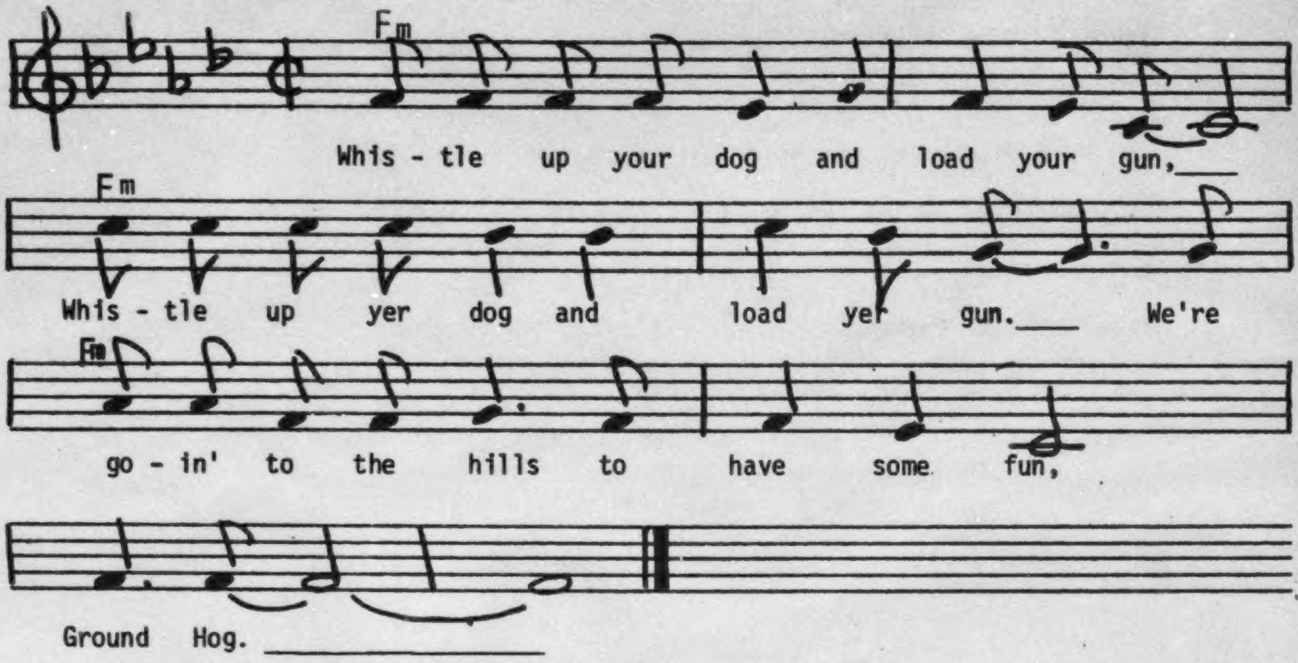
3. Will you wear red, my dear, O dear?
Oh, will you wear red, Jennie Jenkins?
No, I won't wear red,
It's the color of my head.
Chorus

4. Will you wear black, my dear, O dear?
Oh, will you wear black, Jennie Jenkins?
No, I won't wear black,
It's the color of my back.
Chorus

5. Will you wear purple, my dear, O dear?
Oh, will you wear purple, Jennie Jenkins?
No, I won't wear purple,
It's the color of a turkle.
Chorus

6. Will you wear green, my dear, O dear?
Oh, will you wear green, Jennie Jenkins?
No, I won't wear green,
For it's a shame to be seen.
Chorus

GROUND HOG


Fm
Whis - tle up your dog and load your gun,
Fm
Whis - tle up yer dog and load yer gun. We're
Fm
go - in' to the hills to have some fun,
Ground Hog.

2. Big old fellow, a-sittin' on a log, (repeat)
I heard him whistle and I knowed he was a hog, ground hog.

3. Big old fellow, as big as a bear, (repeat)
The meat we'll eat, the hide we'll wear, ground hog.

Passantino
NO. 2 MUSIPACK 12 STAVE

2. Big old fellow, a-sittin' on a log, (repeat)
I heard him whistle and I knowed he was a hog, ground hog.

3. Big old fellow, as big as a bear, (repeat)
The meat we'll eat, the hide we'll wear, ground hog.

4. Get away, Sam, gonna load my gun, (repeat)
The ground hog hunt has just begun, ground hog.

5. Come here, John with your great big pole, (repeat)
And twist this ground hog out of his hole, ground hog.

6. Here he is, boys, the hole's wore slick, (repeat)
Come on, Sam, with your fork'ed stick, ground hog.

7. Up jumped Sam with a ten-foot pole, (repeat)
He jabbed it into that ground hog's hole, ground hog.

8. Work, boys, work for all you earn, (repeat)
Skin him after dark and tan him in a churn, ground hog.

9. Out he comes and begins to whirl, (repeat)
He's the biggest ole ground hog in the world, ground hog.

10. Sam cocked his gun and John pulled the trigger, (repeat)
But the fellow that got him was old Joe Digger, ground hog.

11. Up stepped Sal with a snigger and a grin, (repeat)
"Whatcha goin' to do with the ground hog skin?" ground hog.

12. The children screamed and the children cried, (repeat)
They love that ground hog cooked and fried, ground hog.

13. Dragged him home and put him in to boil, (repeat)
I knowed he was a ground hog, I could smell him for a mile, ground hog.

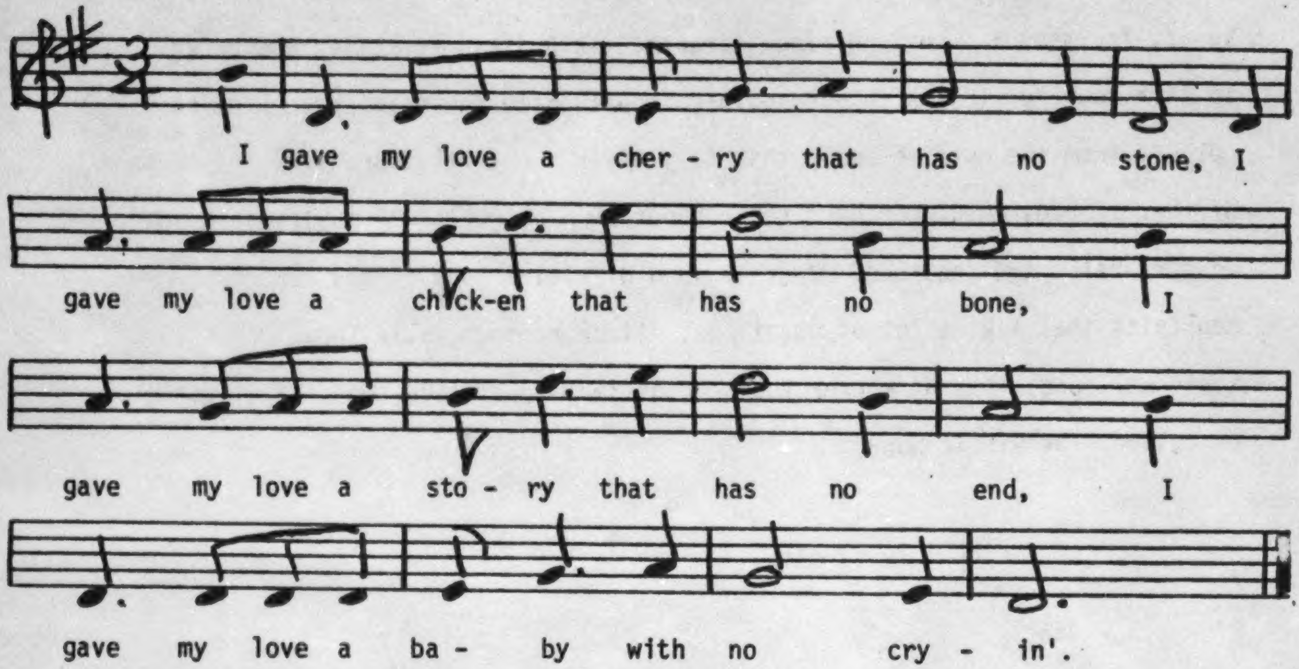
14. Hello, mama, make John quit, (repeat)
He's eatin' all the hog and I can't get a bit, ground hog.

15. Hello, boys, oh ain't it a sin, (repeat)
Watch that gravy run down Sam's chin! ground hog.

16. Old Aunt Sally come a-skipping down the hall, (repeat)
We got enough whistle pig to feed 'em all. Whistle pig.

Folklorists have come to America to complete collections of old British folk songs, for many a tune long since forgotten in Britain is still remembered in this country. Folks in our southern Appalachian Mountains have been so cut off from the outside world that they haven't entirely forgotten the songs of their foreparents, nor have their tunes been corrupted by music heard in concert halls and theaters. There's an old British song in the Kentucky mountains that asks a lot of questions. Since no one really knows how a love story will end, it's no wonder that one of the oldest love songs of all should be called "The Riddle Song."

THE RIDDLE SONG


I gave my love a cher - ry that has no stone, I
gave my love a chick-en that has no bone, I
gave my love a sto - ry that has no end, I
gave my love a ba - by with no cry - in'.

Verse 2
How can there be a cherry that has no stone?
How can there be a chicken that has no bone?

How can there be a story that has no end?
How can there be a baby with no cryin'?

Verse 3
A cherry when its bloomin' it has no stone,
A chicken when its pipin' it has no bone,

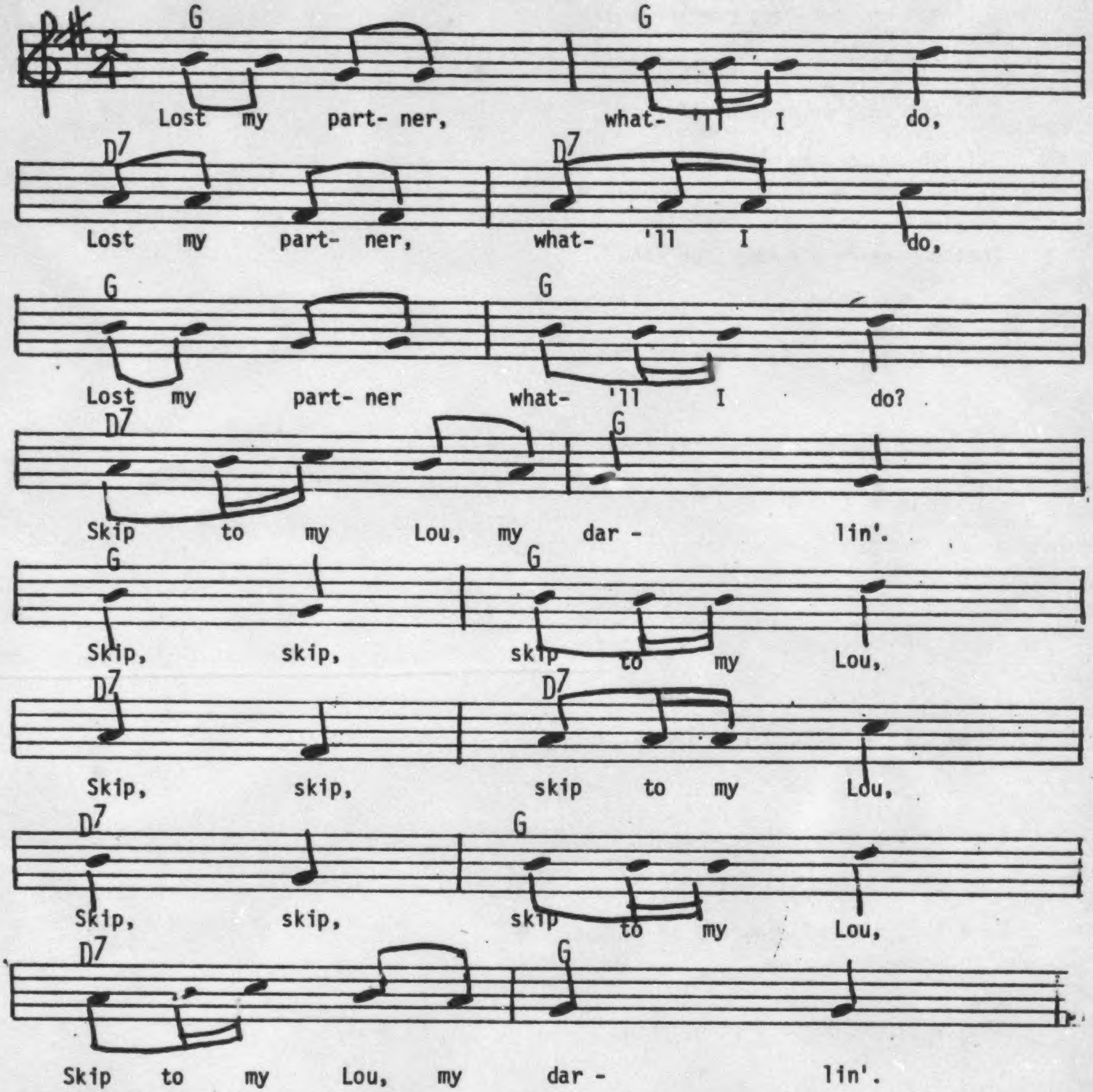
The story of our love, it has no end,
A baby when it's sleepin' there's no cryin'.

Passantino
NO. 2 MUSIPAD 10 STAVE

Some dances were held out of doors. The ground was smoothed and rolled until it was firm; then swept clean for the dancing surface. Other times dances were held in the cabins. When this was the case, the bedstead, loom, table, spinning wheel, and other furniture was moved outside--and wooden logs were arranged along the cabin walls for seats. Dances might also be held in barns.

Swing your partners-two by two,
Any old port in a storm will do,
Strike up the fiddle-rosin the bow,
Everybody whirl and dosey doe;
Dance with the pretty gals-try to count'em
Best old fiddle tune is "Sourwood Mountain."

SKIP TO MY LOU


G G
Lost my part- ner, what- 'll I do,
D7 D7
Lost my part- ner, what- 'll I do,
G G
Lost my part- ner what- 'll I do?
D7 G
Skip to my Lou, my dar - lin'.
G G
Skip, skip, skip to my Lou,
D7 D7
Skip, skip, skip to my Lou,
D7 G
Skip, skip, skip to my Lou,
D7 G
Skip to my Lou, my dar - lin'.

Passantino
NO. 2 MUSIPACK 10 STAVE

2.

I'll get another one, purtier too;
I'll get another one, purtier too;
I'll get another one, purtier too,
Skip to my Lou, my darling.

3.

That boy wears a number ten show...

4.

He's got big feet and awkward too...

5.

I'm right upset, say what'll I do...

6.

Flies in the sugarbowl, shoo fly, shoo...

7.

Bears in the pantry, boo, boo, boo...

8.

Mules in the cellar, kicking up through...

9.

Pups in the buttermilk, what'll I do...

10.

Cows in the cornfield, two by two...

11.

Skunks in the parlor, phew, phew, phew...

12.

Cat in the cream crock, skim him through...

13.

Owls in the tree top, hoo, hoo, hoo...

14.

We'll keep it up 'til half past two...

15.

I'll get her back in spite of you...

16.

Purty as a red bird, purtier too...

17.

When I go courting, I take two...

18.

Pig in a poke, say who is who...

19.

Sugar is sweet and so are you...

20.

My gal wears a number nine shoe...

21.

Little red wagon, painted blue...

22.

Hurry up, slow poke, do oh do...

23.

Gone again, now what'll I do...

24.

Can't get a fat gal, skinny one'll do...

25.

One eye brown, and one eye blue...

26.

She's my gal I love her true...

27.

She's the one I want to woo...

28.

She'll have a dress of brightest blue...

29.

Get a white horse and a cutter too...

30.

We will marry 'fore its through.

Directions for Shoo Fly

Group breaks up into couples and forms a single circle of couples.

1. All join hands and take four steps toward the center.

2. Take four steps back to original position.

3. Four steps in.

4. Four steps back.

5.-8. (Songs may be repeated if necessary) Keep hands joined. One couple lifts inside hands to form an arch. One couple on the opposite side of the circle starts across leading every one else, hands joined under the arch, until finally the couple making the arch turn under their own hands, keeping the circle intact with all players facing out.

Repeat 1-4 taking four steps backward toward the center of the circle and four steps forward to places.

Repeat 5-8 to turn circle right side out again. All players walk backward during this part.

2.

Come on, boys, let's go find her,
Come on, boys, let's go find her,
Come on, boys, let's go find her,
Way down yonder in the pawpaw patch.

3.

Pickin' up pawpaws, puttin' 'em in her pocket,
Pickin' up pawpaws, puttin' 'em in her pocket,
Pickin' up pawpaws, puttin' 'em in her pocket,
Way down yonder in the pawpaw patch.

The information for this game is the same as for the Virginia Reel, two lines of players face each other. The first verse is sung using the name of the person at the head of one line. During the singing this person turns to the right and skips down behind his own line and on around the other and back to his place. As the second verse is sung, the person the same person skips around in line again followed by all the people in the other line until all are back in place again. All sing the third verse as the first ones in each line join hands, the second ones join hands, etc., and all follow the head couple around the set and back to place again. Then the head couple moves down the outside of the set to the foot, the next couple becomes the head. Repeat for each turn. If a boy is at the head of the line, the group may sing, "Where, oh, where is poor little Willie," etc.

SKIP TO MY LOU

Form a single circle of partners, facing in. An extra player (two or three in a large circle) is without a partner inside the circle. All sing and clap in time to a verse started by the player in the center. This player steals someone's partner and skips with her (hands joined in skating position) all around the circle and back to her place. The player left without a partner quickly chooses another, and the games continue in this manner.

3. I've lost my girl, now what'll I do?
4. I'll get another one prettier than you.
5. Chicken on the haystack, shoo, shoo, shoo.
6. Pa's got a shotgun, Number 32.
7. Hurry up, slowpoke, do, oh do.
8. My girl wears a number nine shoe.
9. When I go courting, I take two.
10. He's got big feet and awkward too.
11. Kitten in the haymow, mew, mew, mew.
12. I'll get her back in spite of you.
13. We'll keep it up till half past two.
14. One old boot and a run-down shoe.
15. Stole my partner, skip to my Lou.

Bibliography

Books-Pamphlets---This is not expected to be a complete listing of all the materials available but rather the selections that were used to prepare this manual. The materials center has a listing of books and films on this subject and many publications have had lists that you could follow. One-for fun type things is HIGHLY recommended.

Parish, Peggy - Let's Be Early Settlers with Daniel Boone, Harper and Row. The best diorama, designs for clothes and crafts. There is also on in this series on Indians.

History - A selected few.

Burt, Jessie and Ferguson, Robert: Indians of the Southeast: then and now. Abingdon Press, Nashville

Stember, Sol: The Bicentennial Guide to the American Revolution - Vol III The War in the South, E.P. Dutton Co.

Earle, Alice - Home Life in Colonial Days, McMillan Co., NYC

To Be A Pioneer

Morris, Richard: The First Book of the American Revolution, Franklin Watts Co., NYC

Caldwell, Mary: Tennessee, The Dangerous Example-Watauga to 1849, Aurora Press, Nashville

Katz, William - Early America - 1492-1813, Franklin Watts Pub., NYC

McGee, Gentry - A History of Tennessee, 1663-1930, Charles Elder Bookstore

Series of pamphlets - Bicentennial Pub. - Harkness-on Forgotten Heroes and Heriones of Rec.-UT Press

Wright, Louis - Everyday Life on the American Frontier (also Colonial Amer.) GP Putnam Co., NY

Caldwell, Mary - Tennessee - The Volunteer State, Richtext Press, Chicago

Carpenter, Allan - Tennessee, Children's Press, Chicago

Churchill, Edward and Linda - Fun With American History, Abingdon Press

Elliott, Lizzie - Early History of Nashville, Ambrose Printing, Nashville

(THE BEST FOR CHILDREN)

O'Donnell, James - Southern Indians in the American Revolution, UT Press

Burns, Paul - To Be A Pioneer, Abingdon Press

These are just a few helpful books in this area.

Crafts---

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Adrosko, Rita - Natural Dyes and Home Dyeing, Dover Press

D'Amato, Janet and Alex - Quill Work, M. Evans and Co.

D'Amato, Janet and Alex - Colonial Crafts You Can Make, M. Evans and Co.

Fisher, Leonard - Colonial American Craftsmen - series - The Weavers, Printers, Tanners, Classmakers, etc, Franklin Watts

Whittlin', Whistles, and Thingamajigs, Metcalf, Harlan, --Stackpole Books

Pettit, Florence - How to Make Whirligigs and Whimmy Diddles

Stephens, Harold - Echoes of A Passing Era, Pub. by Author, 1320 Honeysuckle Ave., Fairborn, Ohio

Crawford, Marquerita - Cornshuck, Exposition Press, N. Y.

Fuller, Marietta - Crafts, Exposition Press, N. Y.

Facklam, Margery and Phibbs, Patricia - Corn Husk Crafts, Sterling Press

Drama & Folktales

Still, James -Waydown Yonder on Troublesome Creek, G. P. Putman

Burton, Manning - Collection of Folk Lore, East Tenn. State. Univ.

Conservation---

The Glory Trail-Swift, Ernest (The American Migration and its impact on Natural Resources - Conservation Activities for Schools and Camps, America Camping Ass't U.S. Office of Education. Conservation Experiences for Children.

Music and Dance

Both the Girl Scouts and the Boy Scouts have many excellent books on Folk Songs and Play Party Games.

Brand, Oscar - Songs of '76, M. Evans and Co. NYC

Seeger, Pete - Editor - Folk Music U.S.A., Citadel Press, N. Y.

Scott, Tom - Sing on America, Thomas Crowell

Ives, Bard - Song in America, Duell, Stoon and Pearce

Tools - Wood

The best on tools and early life.

Sloan, Eric - Museum of Early American Tools, A Reverence for Wood, Barns, Diary of an Early American Boy, The Vanishing Landscape, Do's and Don'ts of Early Life. The ABC of Pioneer Living

Miller, Robert - American Primitives, Wallace-Homestead Books, Iowa

Foods, Remedies

Check the Good Earth Magazine for many ideas.

Himler, Ronald - Indian Harvest, McGraw-Hill Pub. NYC

Laurel, Alice - Living on The Earth, Vintage Books

Weiner, Michael - Earth Foods, Earth Medicine, Collier-McMillan

Niethammer, Carolyn - American Indian Food and Lore, Collier Books

Russell, Helen Ross - Foraging for Dinner, Thomas Nelson, N.Y.

Hatfield, Audrey - How To Enjoy Your Weeds, Collier Books

Angier, Bradford - Free For The Eating, More Free For The Eating, Stackpole Books

The Fox Fire Books - I - II - III, Anchor Press, N. Y.

Folk Songs and Folk Games of The Pioneers

Music played an important part in the settling of our country. There was very little recreation except for that "made" by the pioneers themselves. Every wagon train, every group moving towards the west had it's fiddler and players. In some parts of the country the dances were called "play party games" as it was considered wicked to "dance". From these early games have come the square dances of today.

Most of the songs were early Anglo-saxon and the folk ballads are still to be found in our mountain towns. With TV and radio many good records and books on folk music and dance. Here are just a few that can be taught and done by the students.

Singing was a favorite activity. You may know some of the old songs such as "Wait for the Wagon," "The Quilting Party," "Paper of Pins," or or "Go Tell Aunt Nancy." The words of some songs didn't always make a lot of sense, but the pioneer liked to sing them.

Dancing was very popular, too. It was the kind of dancing we know as square dancing and folk dancing. Pioneer boys and girls knew such dance terms as balance and swing, allemanda left, grand right and left, all promenade, circle four, birdie in the cage, dive for the oyster, duck for the clam, splitting the ring, and many more from the time they were very young.

J - con.

BICENTENNIAL
A SELECTED LIST OF 16mm FILMS
INSTRUCTIONAL MATERIALS CENTER
METROPOLITAN PUBLIC SCHOOLS
AUGUST, 1975

CONTEMPORARY PROBLEMS	Grade Level
America--Nineteen-Seventy	Jh. Sh.
The Changing City	Jh. Sh.
The Cities: A City is to Live In	Jh. Sh.
Cities and Protection: Protecting Lives and Property	P.
The City Changes	P. El.
A City and Its People	P. El.
Controversy Over Industrial Pollution: A Case Study	Sh.
Energy	Jh. Sh.
Energy: A Matter of Choice	Jh. Sh.
The Farmer in a Changing America	Jh. Sh.
Frontiers--1965	Jh. Sh.
The Garbage Explosion	Jh. Sh.
A Nation in Crisis	Jh.
Nixon's Visit to China: One Small Step	Jh. Sh.
Noise: Polluting the Environment	El. Jh. Sh.
Our Changing Cities: Can They Be Saved?	Jh. Sh.
Population, Part I & II	Sh.
Population and Pollution	El. Jh. Sh.
United States in the Twentieth Century: Part I & Part II	Jh. Sh.

DOCUMENTS, RIGHTS, LAWS	Grade Level
Basic Court Procedures	Jh. Sh.
Bill of Rights in Action: Story of a Trial	El. Jh. Sh.
The Bill of Rights of the United States	El. Jh. Sh.
The Constitution of the United States	Jh. Sh.
Debt to the Past: Government and Law	Jh. Sh.
Democracy--Equality or Privilege? (Thomas Jefferson vs Alexander Hamilton)	Sh.
Federal Taxation	Jh.
The First Freedom	Jh. Sh.
Interrogation and Counsel	Sh.
Justice, Liberty and Law	Sh.
The Living Constitution	Jh.
Our Basic Civil Rights	Jh. Sh.
Our Living Constitution	Jh. Sh.
Our Living Declaration of Independence	Jh. Sh.
Our Two Great Documents	Sh.
Right of Dissent (John Adams vs. Matthew Lyon)	Sh.
Right of Petition (John Quincy Adams vs. Thomas Marshall)	Sh.
States Rights (Andrew Jackson vs. John C. Calhoun)	Sh.
What "Liberty and Justice" Mean	P. El.
EXPLORATION AND COLONIZATION	
The Beginnings of Exploration	El. Jh.
Colonial America in the 1760's	Jh.
Colonial Children	El.
Colonial Life and Crafts	El. Jh. Sh.
Cooper's Craft in Colonial Virginia	Jh. Sh.

EXPLORATION AND COLONIZATION (con't.)	Grade Level
Craftsmen	Jh. Sh.
Eighteenth Century Life in Williamsburg, Virginia	El. Jh. Sh.
The English and Dutch Explorers	El. Jh.
Founding of the American Colonies	Jh.
The French Explorers	El. Jh. Sh.
Jamestown (The First English Settlement in America)	El. Jh.
Johnny Appleseed: A Legend of Frontier Life	El. Jh. Sh.
Light Here Kindled	Jh. Sh.
The Pilgrims	Jh. Sh.
Pilgrim Adventure	Sh.
The Spanish Explorers	Jh. Sh.
Spinning Wheel	El.
Williamsburg: Part I, II & III	El. Jh. Sh.

GEOGRAPHY

Alaska--The 49th State	El. Jh. Sh.
Alaska: USA	El. Jh. Sh.
Alaska's Modern Agriculture	El. Jh.
The American Spectacle	Jh. Sh.
Chicago--Midland Metropolis	El. Jh. Sh.
Geography of the United States: The Middle West	El. Jh.
Geography of the U.S.: Pacific States	El. Jh.
The Great Plains--Land of Risk	El. Jh.
Hawaii--The 50th State	El. Jh. Sh.
The Interior West: The Land Nobody Wanted	El. Jh. Sh.
The Middle States	Jh. Sh.
Midwest: Heartland of the Nation	El. Jh.

GEOGRAPHY (con't.)	Grade Level
Mississippi River: Its Role in American History	El. Jh. Sh.
The Mississippi River: Trade Route of Mid-America	Jh. Sh.
Northeast: Gateway for a Nation	El.
The Northwest: Headquarters for a Nation	El. Jh. Sh.
The Northeast: Port of New York	El.
Northeastern States	El. Jh. Sh.
Northwestern States	El. Jh. Sh.
The Pacific West	El. Jh.
"Seward's Folly," The Story of Alaska	Jh. Sh.
Southeastern States	El. Jh. Sh.
Southwestern States	El. Jh. Sh.
St. Lawrence Seaway	El. Jh. Sh.
Washington, City of the World	El. Jh. Sh.
Far Western States	El. Jh. Sh.
Yellowstone: Our First National Park	El. Jh. Sh.

GREAT AMERICANS

Abraham Lincoln	Jh. Sh.
Abraham Lincoln--A Background Study	Jh. Sh.
Alexander Hamilton	Jh. Sh.
Andrew Carnegie: The Gospel of Wealth	Sh.
Andrew Jackson	Jh. Sh.
Andrew Jackson at the Hermitage	Jh. Sh.
Benjamin Franklin	Jh. Sh.
Booker T. Washington	Jh. Sh.
Boyhood of Thomas Edison	P. El.

GREAT AMERICANS (con't.)	Grade Level
Captain John Smith--Founder of Virginia	Jh. Sh.
Daniel Boone	El. Jh.
Daniel Boone in America's Story	El. Jh.
Dwight D. Eisenhower: Salute to a Crusador	Jh. Sh.
General Douglas MacArthur	Sh.
General George Patton	Sh.
George Marshall	Sh.
General Pershing	Sh.
George Washington	Jh. Sh.
George Washington Carver	El. Jh. Sh.
Henry Ford	Sh.
Henry Wadsworth Longfellow	Jh. Sh.
"I Have a Dream..." Life of Martin Luther King	Jh. Sh.
Impact of Jackie Robinson, The	Jh. Sh.
Indian Boy of the Southwest	El.
Jackie Robinson	Sh.
James Fenimore Cooper	Jh. Sh.
John Fitzgerald Kennedy	Jh. Sh.
John Glenn	Jh. Sh.
John Greenleaf Whittier	Jh. Sh.
John L. Lewis	Sh.
Lewis and Clark	Jh. Sh.
Louis Armstrong--Satchmo and All That Jazz	Jh. Sh.
Louisa May Alcott	Jh. Sh.
Meet Mr. Lincoln	Jh. Sh.
Norman Rockwell's World--An American Dream	Jh. Sh.

GREAT AMERICANS (con't.)	Grade Level
Oliver Wendell Holmes	Jh. Sh.
Robert E. Lee: A Background Study	Jh. Sh.
Robert Taft	Sh.
Roger Williams (Founder of Rhode Island)	Jh. Sh.
Senator Andrew Johnson - Pt. I & II	Sh.
Thomas Jefferson	Jh. Sh.
Walt Whitman: Poet for a New Age	Sh.
Washington Irving	Jh. Sh.
Will Rogers	Sh.

LABOR, INDUSTRY AND AGRICULTURE	Grade Level
An Agricultural Revolution: Down on the Farm	Jh. Sh.
Beginnings and Growth of Industrial America	Jh. Sh.
Boomsville	El. Jh.
Cities and Manufacturing: Where We Make Things	P.
Growth of Big Business in America - 1865-1900	Jh. Sh.
Growth of Farming in America - 1865-1900	Jh. Sh.
The Industrial Revolution: Beginnings in the United States	Jh. Sh.
Labor Movement: Beginnings and Growth in America	Jh. Sh.
The Lumberman--Our Changing Way of Life	El. Jh.
The Magic Lantern Show...And How It Grew	Jh. Sh.
The Rise of Labor	Jh. Sh.
Rise of Organized Labor	Jh. Sh.
Rise of Industrial Giants	Jh. Sh.

LIFE IN AMERICA

	Grade Level
Colonial Expansion	El. Jh. Sh.
Foxfire	Jh. Sh.
Home Life	El.
The Hundred Days (The Depression)	Jh. Sh.
Kentucky Pioneers	Sh.
Kentucky Rifle	El. Jh. Sh.
Life in the Thirties: 1930-1936, Part I; 1936-1939, Part II	Jh. Sh.
Life in Old Louisiana (1830-1850)	El. Jh. Sh.
The Loom	El.
Our Town and Our Universe	Jh. Sh.
Our Town and Ourselves	Jh. Sh.
The Plantation South	Sh.
Planter of Colonial Virginia	El. Jh. Sh.
Tom Savage, Boy of Early Virginia	El. Jh.

LITERATURE, ART AND MUSIC

Bartleby by Herman Melville (and A Discussion of Bartleby)	Sh.
Dr. Heidegger's Experiment by Nathaniel Hawthorne (and A Discussion of Dr. Heidegger's Experiment)	Jh. Sh.
Folksongs of America's History	El. Jh. Sh.
Folksongs of the Western Movement: 1787-1853	El. Jh. Sh.
The Hands of Maria	El. Jh. Sh.
Harlem Renaissance: The Black Poets	Jh. Sh.
Hopi Indian Arts and Crafts	El. Jh.
The Jazz Age: 1919-1929	Sh.

LITERATURE, ART AND MUSIC (con't.)

	Grade Level
The Lady or the Tiger? by Frank Stockton (and A Discussion of the Lady or the Tiger?)	Sh.
Legend of Mark Twain	El. Jh. Sh.
The Loon's Necklace	El. Jh. Sh.
The Lottery by Shirley Jackson	Sh.
Magic Prison, A Dialogue Set to Music	Sh.
My Old Man by Ernest Hemingway	Sh.
Star Spangled Banner	P.

PEOPLE OF AMERICA

The Alaskans	Jh. Sh.
American First Ladies	Sh.
American Indians Before European Settlement	El. Jh. Sh.
America--The Melting Pot	Jh. Sh.
Dawn of the American Revolution: A Lexington Family	El. Jh. Sh.
Eskimo Children	El.
Eskimo Family	El. Jh. Sh.
Flatboatmen of the Frontier (Ohio Valley Farmers: 1790-1820)	El. Jh.
Frontier Boy of the Early Midwest	El.
The Hawaiians	Jh. Sh.
Heritage in Black	El. Jh. Sh.
History of the Negro in America: 1619-1860, Out of Slavery	Jh. Sh.
History of the Negro in America: 1861-1866, Civil War and Reconstruction	Jh. Sh.
History of the Negro in America: 1877-Today, Freedom Movement	Jh. Sh.

PEOPLE OF AMERICA (con't)

	Grade Level
Indian Family of Long Ago	El. Jh.
Indians In The Americas	El. Jh. Sh.
Indians of Early America	El. Jh.
A Nation of Immigrants: The Golden Door	Jh. Sh.
The Navajos of the 70's	El. Jh. Sh.
Navajo Children	El.
Navajo Indians	El.
Navajo Indian Life	Jh. Sh.
Navajo - The Last Red Indians	Jh. Sh.
Navajoland, A Nation Within a Nation	Jh. Sh.
Our Totem is the Raven (An Indian Heritage Film)	El. Jh. Sh.
People Along the Mississippi	El. Jh. Sh.
To All the World's Children	Jh. Sh.
Tom Savage--Boy of Early Virginia	El. Jh.
Who Are the People of America?	El. Jh. Sh.

PRESIDENTS & LEGISLATORS

The American Presidency	Jh. Sh.
The First Tuesday After the First Monday	Jh. Sh.
Focus on the Vice-Presidency	Jh. Sh,
Forward Together (Resignation of President Nixon)	Jh. Sh.
Impeachment of President (Andrew Johnson vs. Thaddus Stevens)	Sh.
Meet Your Federal Government	Jh. Sh.
The Presidency--Search for a Candidate	Jh. Sh.
President of the United States: Too Much Power	Sh.
President's Cabinet	Jh. Sh.

PRESIDENTS & LEGISLATORS (con't.)	Grade Level
Richard M. Nixon: This Way To The Whitehouse	Jh. Sh.
Servants of the People	Jh. Sh.

REVOLUTION

The American Revolution	Jh. Sh.
American Revolution: The Background Period	Jh. Sh.
American Revolution: The Postwar Period	Jh. Sh.
American Revolution: The War Years	Jh. Sh.
The Battle of Yorktown	Jh. Sh.
The Beginning at Plymouth Colony	Sh.
The Boston Tea Party	Jh. Sh.
The Declaration of Independence by the Colonies	Jh. Sh.
Fighting for Freedom	Jh.
Launching the New Government	Jh. Sh.
Lexington, Concord and Independence	Jh.
The Midnight Ride of Paul Revere	El. Jh. Sh.
Prelude to Revolution	Jh.
Taxation Without Representation	Jh.
"We, The People"	Jh. Sh.

SPACE EXPLORATIONS

Apollo Project, A Progress Report	Jh. Sh.
Apollo Project II: Mission to the Moon	Jh. Sh.
Flight of Apollo 7	El. Jh. Sh.
Flight of Apollo 15	Jh. Sh.
Stepping Stones in Space: Goddard to Apollo 17	Jh. Sh.
A Walk on the Moon	Jh. Sh.

SYMBOLS, INSTITUTIONS AND LANDMARKS

	Grade Level
The American Flag, The Story of Old Glory - Red, White and Blue	El. Jh.
Federal Communications Commission	Jh. Sh.
The History of Our Flag	El.
House of Wonders (Smithsonian Institution)	Jh. Sh.
Our Country's Song	El. Jh.
Patriotism	P.
The Pledge of Allegiance	P. El. Jh.
Theodore Roosevelt's Sagamore Hill	El. Jh. Sh.
Thomas Jefferson's Monticello	El. Jh. Sh.
Washington, D.C., Capital City, U.S.A.	Jh. Sh.
What Does Our Flag Mean?	El.

TRANSPORTATION

The Automobile in America	Jh. Sh.
The E-R-I-E	El. Jh. Sh.
From Kitty Hawk to Jumbo Jet	Jh. Sh.
The Harbor	P. El.
The Long Haul Man	El. Jh. Sh.
Panama Canal...Tunnel for Commerce	El. Jh. Sh.
Pony Express	El. Jh.
Space Age Story: Dr. Goddard to Project Gemini	Jh. Sh.
Stagecoach Westward	El.
The Steam Age--History of Transportation	El. Jh.

UNITED STATES EXPANSION

The American Southwest	El. Jh. Sh.
City Out of the Wilderness	Jh. Sh.

UNITED STATES EXPANSION (con't.)	Grade Level
Ghost Towns of the Westward March	El. Jh. Sh.
The Louisiana Purchase--Key to a Continent	Jh. Sh.
The Oregon Trail	El. Jh.
Pioneer Journey Across the Appalachians	El. Jh.
Santa Fe and the Trail	El.
Trail of the Forty-Niners	El. Jh. Sh.
United States Expansion: Part I, II, III, IV	Jh. Sh.
Westward Growth of Our Nation	El. Jh.
Westward Movement I--Settlers of the Old Northwest Territory	El. Jh.
Westward Movement II--Settlement of the Mississippi Valley	El. Jh.
Westward Movement III--Settling of the Great Plains	El. Jh.
Westward Movement IV--Texas and the Mexican War	El. Jh. Sh.
Westward Movement V--The Gold Rush	El. Jh. Sh.

WARS

Background of the Civil War	Jh. Sh.
The Civil War	Jh. Sh.
The Civil War: 1863-1865	Jh. Sh.
The Civil War: Background Issues	Sh
The Civil War: Postwar Period	Jh. Sh.
The Civil War: First Two Years	Jh. Sh.
The French and Indian War	Jh. Sh.
The Great Debate, Lincoln vs. Douglas	Jh. Sh.
Remember Pearl Harbor	Jh. Sh.

WARS (con't.)	Grade Level
The Road to Gettysburg	Sh.
Story of Sam Davis: Hero of the Confederacy	Jh. Sh.
Vietnam Epilogue: The End of the Tunnel	Jh. Sh.
War of 1812	El. Jh.
World War I: Pt. I, II & III	Jh. Sh.
World War I--A Documentary on the Role of the U.S.	Jh. Sh.
World War II--Prologue, U.S.A.	Jh. Sh.